SHIPMAIN

An Overview of the SHIPMAIN Modernization Planning Process

SHIPMAIN Overview

SHIPMAIN is a Navy-wide initiative to create a surface ship maintenance and modernization program that will support the vision of “Sea Power 21” and its “Culture of Readiness” (COR). Included in the program are:

1. Requirements: Beginning with inputs from the fleet or the Alts & MODs process and ending with documentation to planning organizations;
2. Package Prep: Beginning at planning organizations and ending with approved and funded work package specs to contracting organizations;
3. Placement & Oversight: Beginning with funded work package specs and ending with contract awarded and contract admin work completed with the 2K closed in the CSMP;
4. Alts & MODS: Beginning with an idea and ending with scheduled installation into an avail.

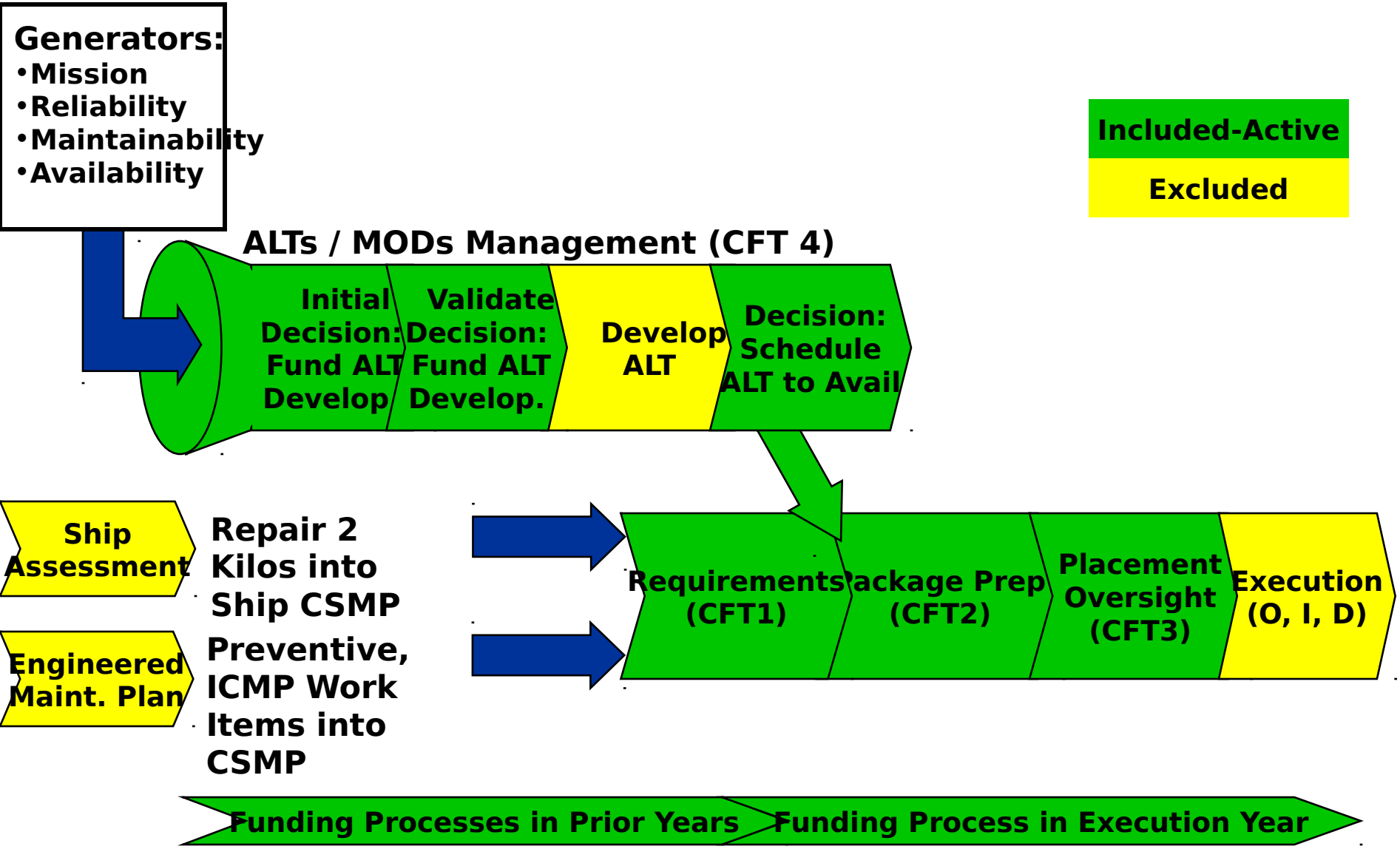
SHIPMAIN Goals

- Install a common planning process for surface ship maintenance and alterations
- Increase the efficiency of the process without compromising its effectiveness
- Install a disciplined management process with objective measurements
- Institutionalize the process and a continuous improvement method

Vision of Entitlement

- **Single universal streamlined process**
- **Continuous focus on maintenance with dedicated maintenance teams**
- **Funding stability to execute business plans**
- **Maintenance supported through long term win-win relationships with contractors in MSMO contracts**
- **Executing activity does the planning**
- **All modernization that is approved gets funded, procured and installed within 3 years**
- **Metrics will drive performance and process will improve as cycles of learning are applied**

SHIPMAIN – Consistent Scope



Senior Leadership Deeply Involved

SHIPMAIN PIT

VADM LaFleur (CNSF) – CEO

VADM Balisle (NAVSEA)	VADM Malone (CNAF)
RADM Hart (N43)	RADM Hamilton (PEO Ships)
RADM Etnyre (CNSL)	RADM Sullivan (SEA 05)
RADM Dwyer (PEO Carriers)	Mr. Bauman (PEO SPAWAR)
RADM Nowakowski (MINEWARCOM)	RDML Timme (SEA07)
RDML Masso (CNSL)	RDML LeFever (N75)
RDML Hugel (N43B)	RDML Williams (SG 9)
RDML Bryant (CPF N43)	RADM Edwards (N76)
Mr. Ryzewic (CPF N43)	RDML Harnitchek (NAVICP)
Mr. Klein (SPAWAR)	RADM(s) Bush (PEO IWS)

COO – RADM(s) Brooks (CLF N43) **TG: Mr. Zych**

Process Team | **Communications Team** | **Metrics Team**

CFT1 ‘Requirements’

CFT2 ‘Package Preparation’

CFT3 ‘Placement & Oversight’

CFT4 ‘Alt and Mods’

CFT 4 Modernization Process Key Points

- **Collapse 40+ alteration types into 2 (Fleet and Program)**
- **Institutionalize a single, disciplined, hierarchical decision making process**
- **Develop a balanced Modernization Plan for Surface Ships**
- **Create a single, authoritive Database for Ship Changes**
- **Entitled MP Process will accommodate Programs**
- **Zero the Churn**
- **Install what we buy within 3 years.**

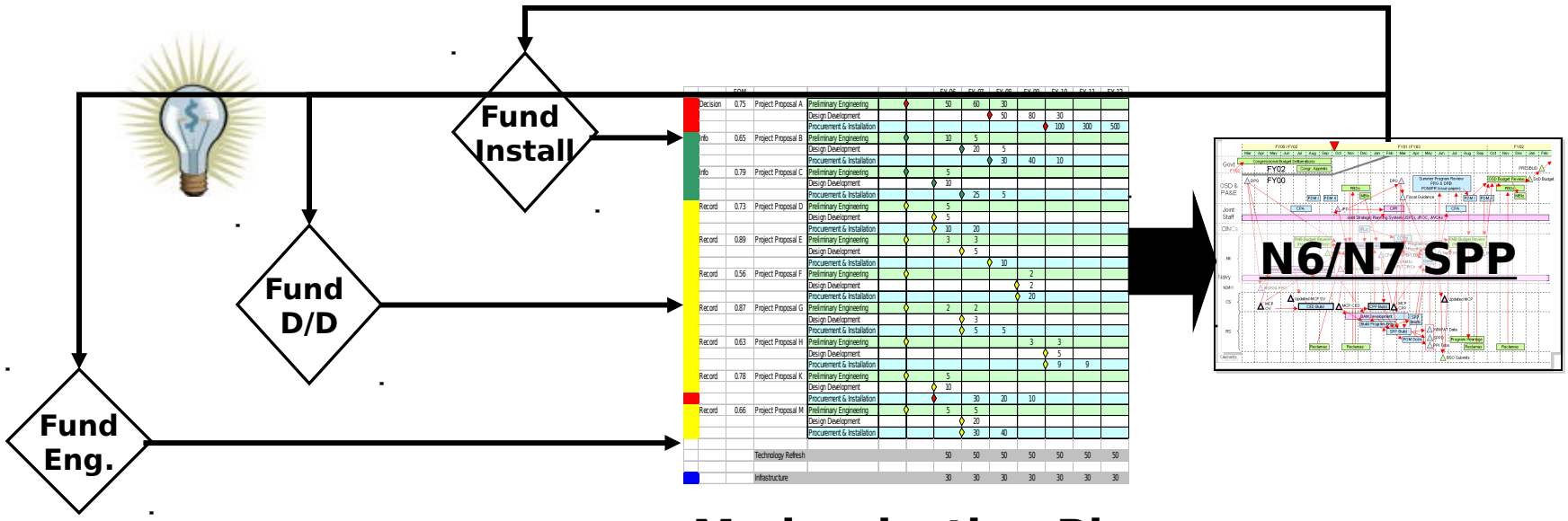
Decision Stakeholder Roles & Responsibilities

- **3 Star**
  - Set over all priorities
  - Approve Surface Ship Modernization Plan POM Submission
  - Validates 1 / 2 Star Decisions
  - Provides Fleet/OPNAV/Claimant recommendation to ACAT I and some ACAT II Program Milestone Decision Authority
- **1 / 2 Star**
  - Validates O6 Decisions
  - Adjudicates O6 Board Issues
  - Provides Fleet/OPNAV/Claimant recommendation to some ACAT II and ACAT III and below Program Milestone Decision Authority
- **O6**
  - Approves Fleet Alterations
  - Majority of Decisions made at O6 Board
  - Staff Decisions for higher level

Note: Program Alterations are approved at the appropriate level based upon threshold and ACAT designation

Annual Modernization Program Development

Annual Programming and Process Guidance



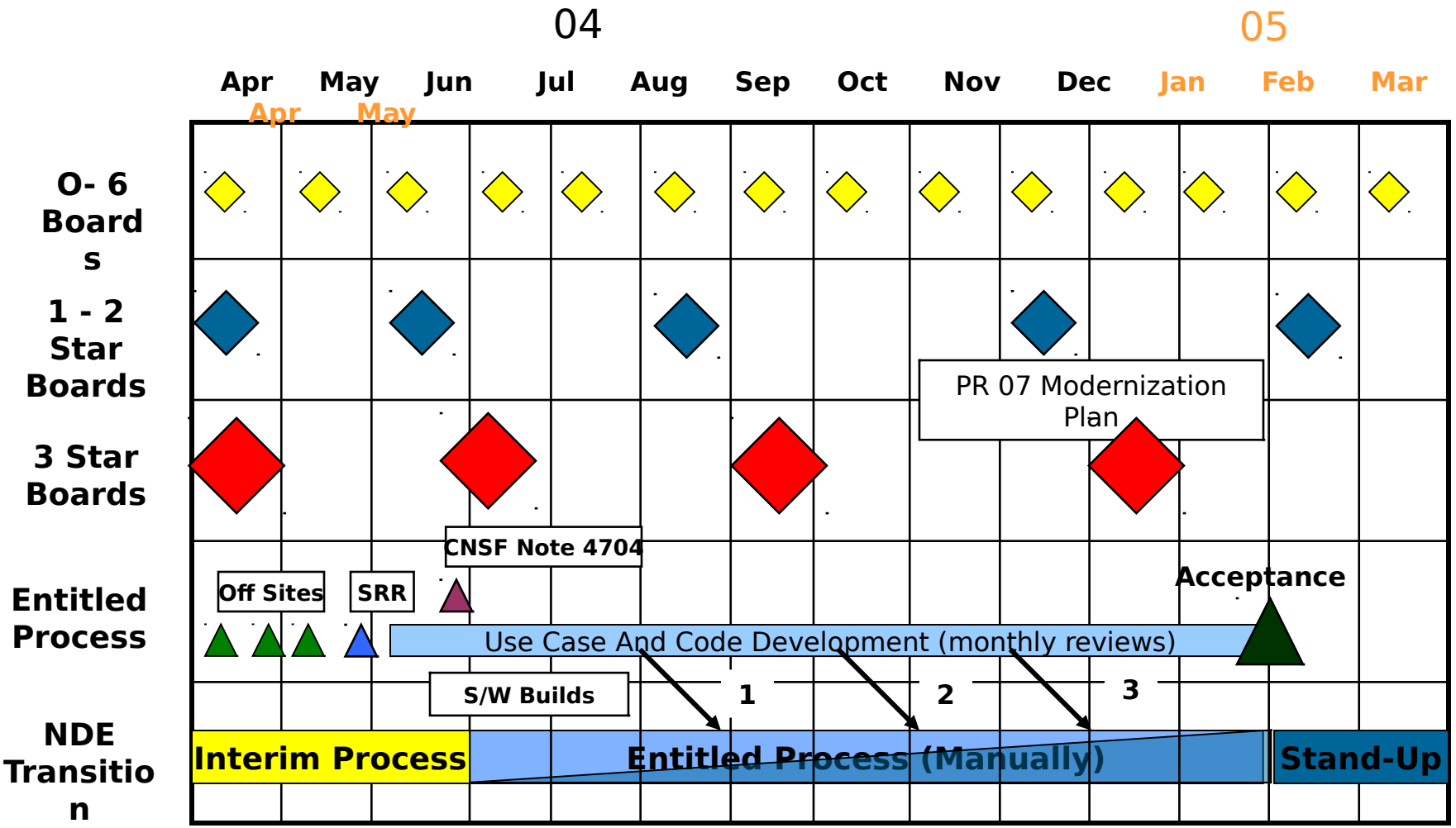
Modernization Plan

FY (a-e)

Per 100 Ideas:

- **75 - O6 Level**
  - **Simple, <$50 M, Non-ACAT**
- **20 – 1 / 2 Star Level**
  - **Complex, >$50 M - <$200 M, ACAT III, IV**
- **5 – 3 Star Level**
  - **Fleet Wide, >$ 200 M, ACAT I, II**

CFT 4 Schedule – Entitled Process



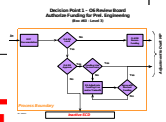
CFT 4 Entitled Process Development

- **Offsites**
  - **6 – 8 APR Washington**
  - **27 –29 APR Washington**
  - **11 – 13 MAY NETWARCOM**
- **Four Teams**
  - **Voting and Workflow**
  - **Technical Assessment**
  - **Cost Benefit Analysis (CBA)**
  - **Alteration Figure of Merit (AFOM)**
- **Draft Business Rules, Detailed Process Charts and Use Cases distributed 17 May**
- **Monthly Software Requirements Reviews (SRR) starting May 27**
- **Stakeholders Initial Training (Jun – Jul)**
- **Manual operation of the entitled process**

Walkthrough:

Representative Ship Changes

Alts & MODs Process Map 11Jun04



Fleet
- Commander
- TYCOM

OPNAV
- N6-N7
- Nxx

PEO
- SPM (Indluding PY)
- PARM

SYSCOMS
- PARM
- NAVSEA
- SPAWAR
- NAVAIR
- Technical Authority

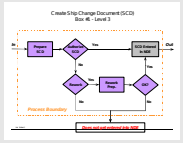
Com-ments

10 Idea

Complete Ship Change Document (SCD). This will be the single document that remains with an Ship Change (SC) throughout its development.

Minimum information level is equivalent to that required to support Acuisition Milestone A as defined in DOD 5000 series.

Concept Development level engineering is the responsibility of the submitting activity.



NDE

20 Tech Assess

Tech Assessment

30 AFOM

AFOM Process

ALT Figure of Merit (AFOM) and CBA are independent and executed in parallel.

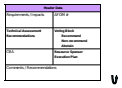
40 CBA

Cost Benefit Analysis (CBA) is completed by an Independent Cost Review Team.

CBA Overview

50 RCP

Recommendated Change Package (RCP) is an executive summary document with recommendations.



Decision Point 1

60 Authorize Fund Prelim Engineering

Yes

No

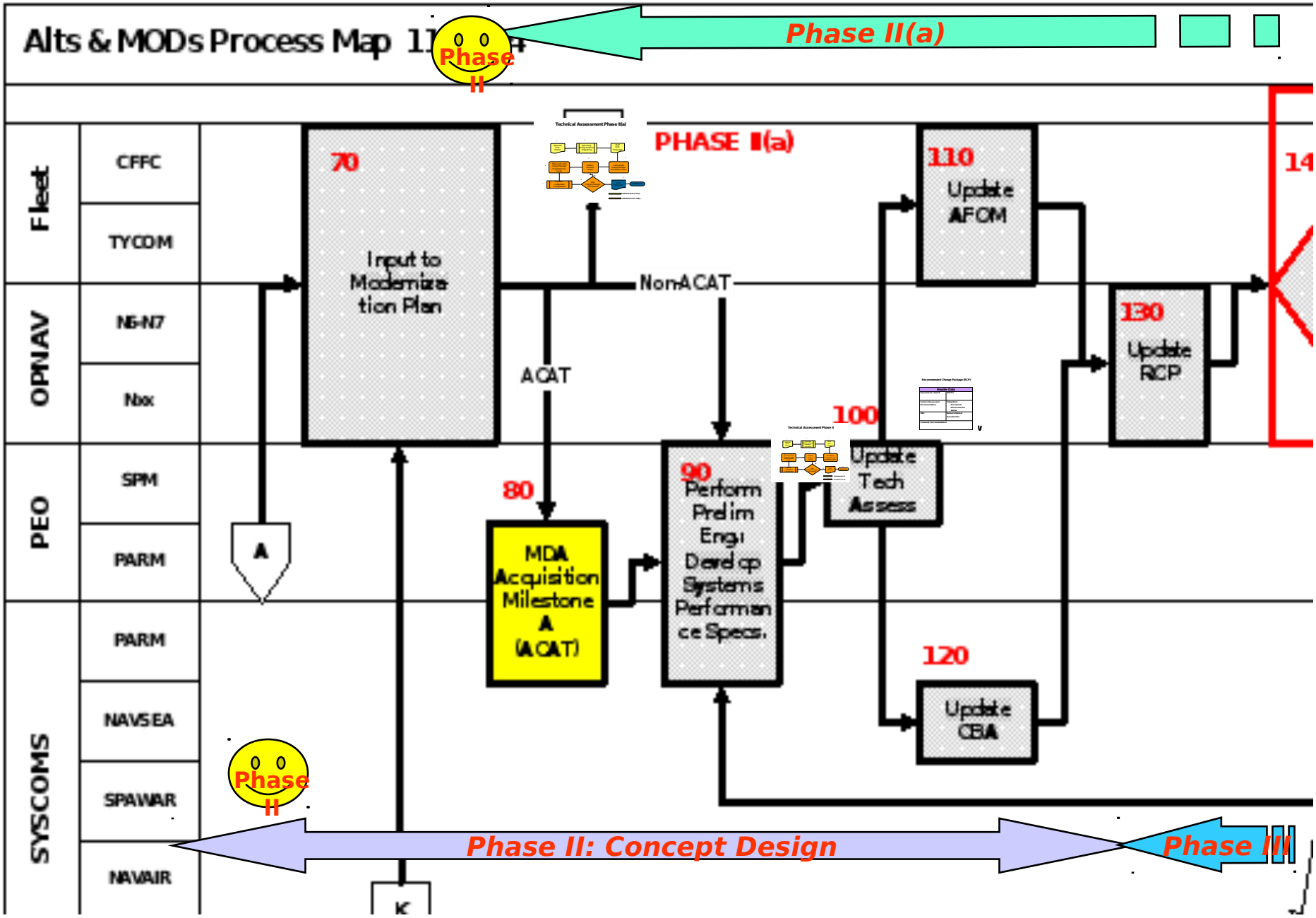
A

Inactive

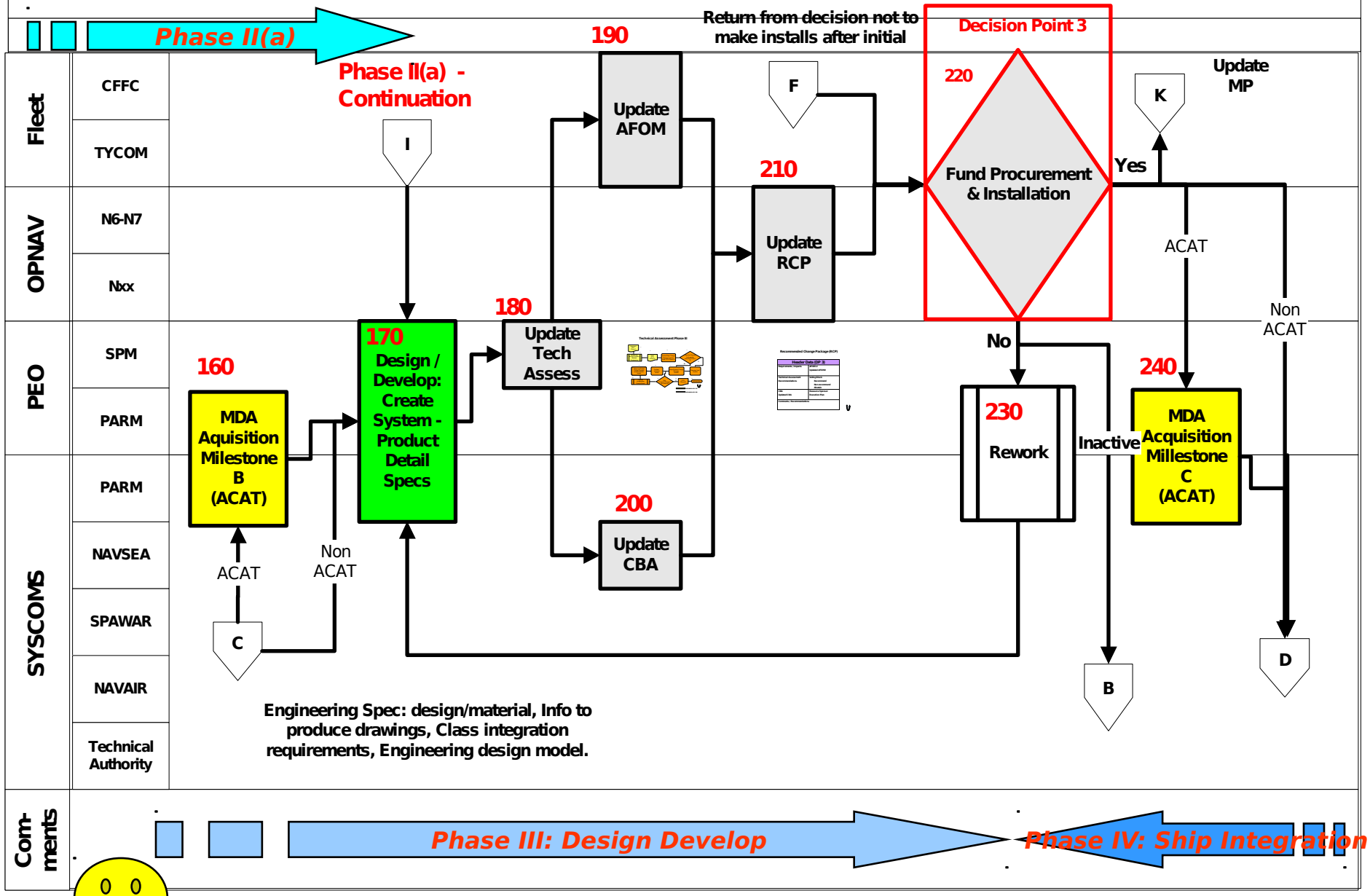
B Inactive

SCD

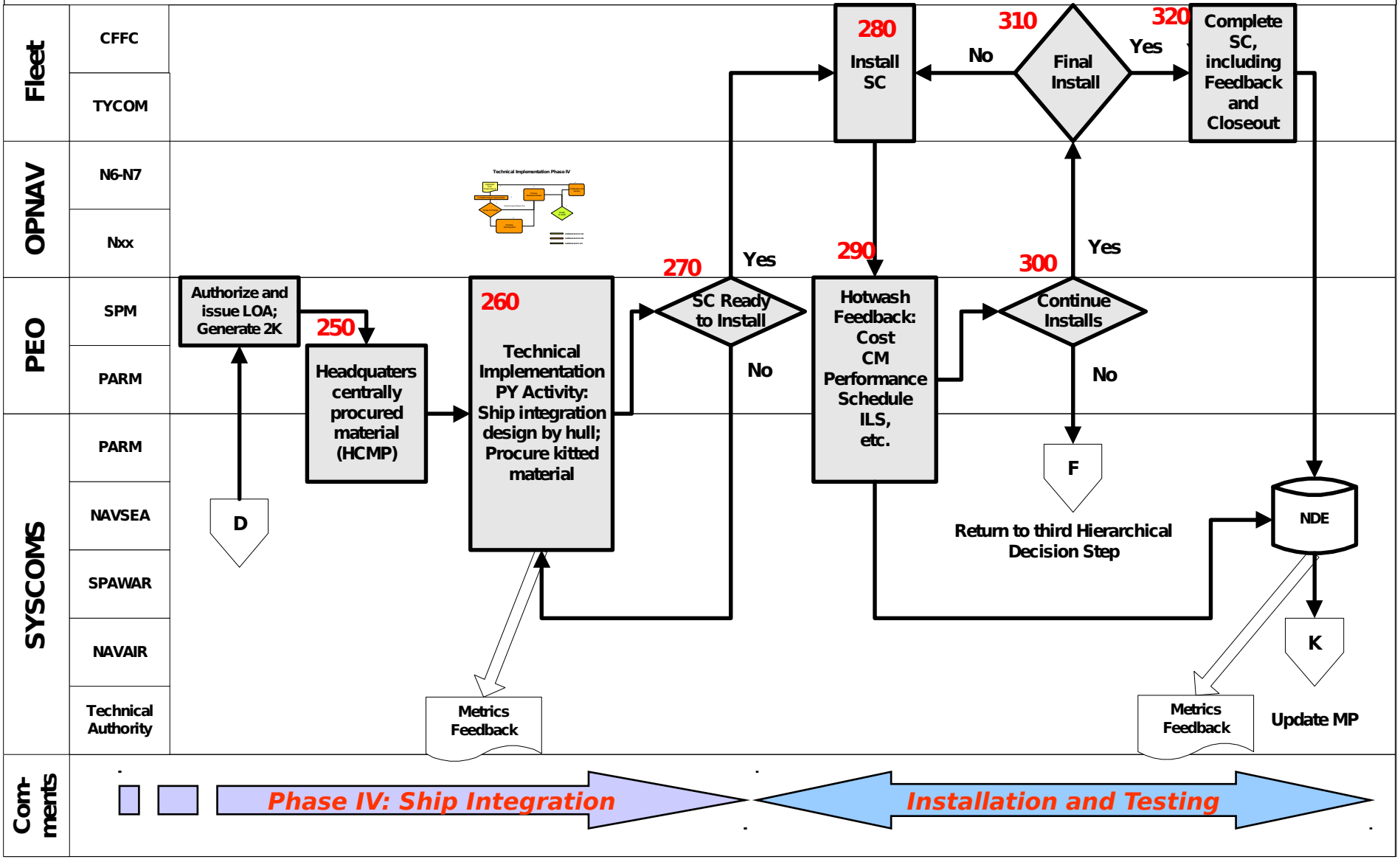
Phase I: Preliminary Analysis


Alts & MODs Process Map 11
Phase II
Phase II(a)
Fleet
CFFC
TYCOM
OPNAV
N6-N7
Nxx
PEO
SPM
PARM
SYSCOMS
PARM
NAVSEA
SPAWAR
NAVAIR
PHASE II(a)
70
Input to Modernization Plan
NonACAT
ACAT
110
Update AFOM
130
Update RCP
14
100
Update Tech Assess
80
MDA Acquisition Milestone A (ACAT)
90
Perform Prelim Engr Develop Systems Performance Specs.
120
Update CBA
A
Phase II
Phase II: Concept Design
Phase III

Alts & MODs Process Map 11Jun04



Alts & MODs Process Map 11Jun04



CFT 4 Entitled Process (EP) Transition

- **Train O6 Board on EP – Completed**
- **Initial Training of Stakeholders on EP – Completed**
- **Distribute draft CNSF Instruction 4704 – In Process**
- **Development of Ship Change Document – In Process**
- **Mandate use of SCD – Completed**
- **EP implemented as a manual process - Completed**
- **Final O6 Review Board using “Snapshot” Process - Completed**
- **First O6 board using EP – Completed**
- **Estimate full completion of automated EP – Spring 05**

Conversion of Modernization Packages to the Ship Change Document (SCD) that were generated prior to 19 July 04

	SCD Phase I (No approval)	SCD Phase II (Completed DP 1)	SCD Phase III (Completed DP 2)
Configuration Change (CFC) or Proposed Alteration (PA) that has not been approved by the O6 review board and is not identified in the Modernization Plan (MP). (Including 19 Aug board).	X		
Configuration Change (CFC) or Proposed Alteration (PA) that has been approved by the O-6 review board and is part of the MP but has no supporting documentation (i.e. JCF, SA#, ECP etc.)		X	
Completed Modernization Package (i.e. Signed ECP, approved ordalt, SA# with SAR, etc.) not having O-6 board approval but requiring Installation and Procurement Authorization			X

Critical Success Factors – Where We Are

- **A single well defined process to evaluate, approve and implement modifications to ships and ship's system**
- **One 'Entitled' process owner (PIT) with the power to enforce**
- **One common authoritative database that support process elements, configuration management, scheduling and budgeting**
- **Hierarchical, mission-driven decision model:**
  - **Clear authority, responsibility and accountability**
  - **Appropriate stakeholders**
- **Align decision making hierarchically by Figure of Merit (FOM) with programming, budget resourcing, and statutory and compulsory decision makers**
- **Build comprehensive Business case and Technical analysis through increasing rigorous decision process**
- **Provide flexibility to accommodate critical operational requirements without sacrificing sound engineering requirements**
- **Timely metrics that inform the decision makers in order to facilitate process control and improvement**
- **Funding for FMP procurement & installation is "fenced"**

Entitled MP Issue Summary

- **Requirement to declare estimated total program costs at Decision Point 1**
  - **Must POM true costs**
- **Personnel Requirements / Realignments**
- **Capabilities / Programs**
- **Shared OPNAV / Fleet funding responsibilities**
- **Assurance that EP works for Fleet / Program SC, including C4I**
- **Thresholds**
- **Role of OPNAV staff**

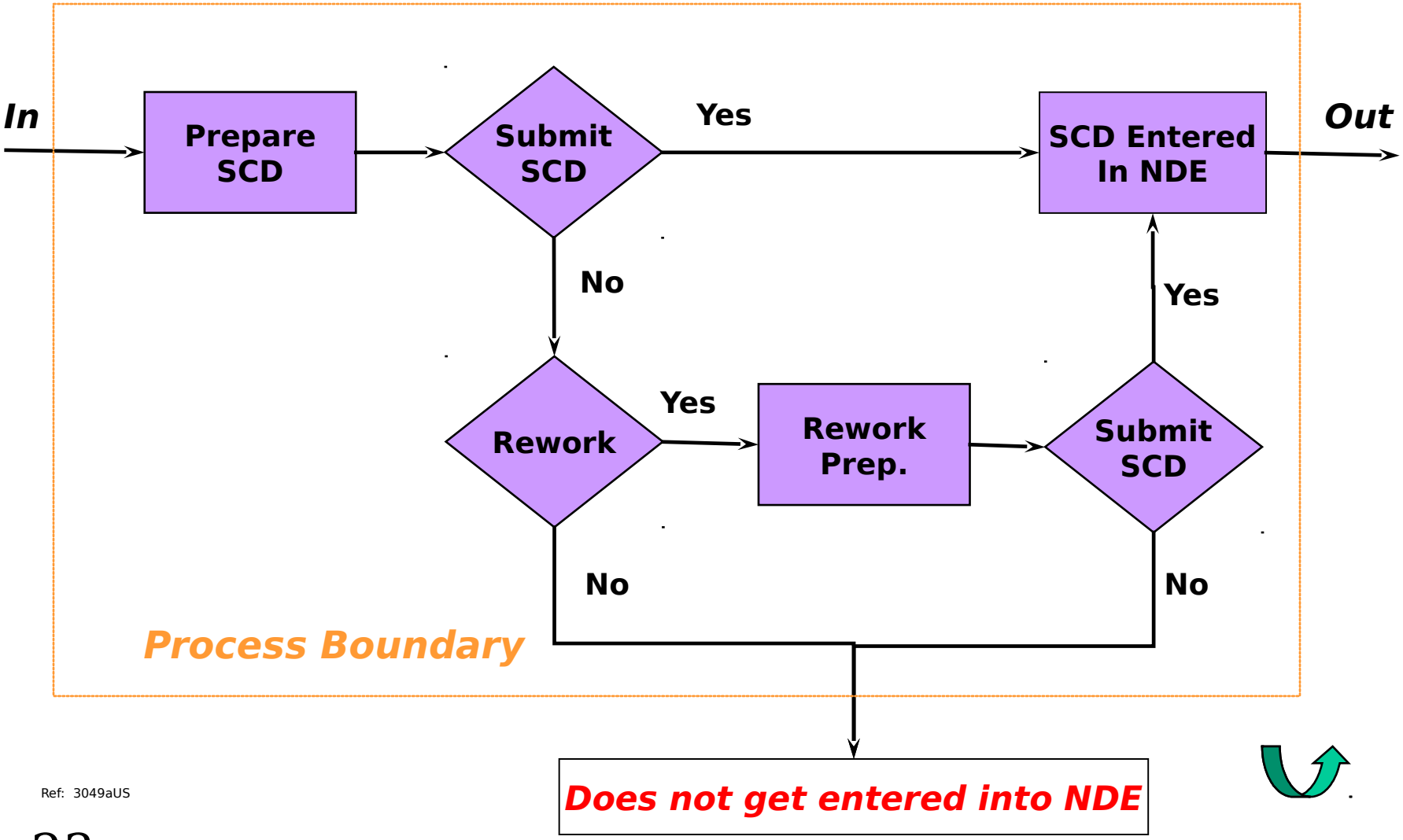
Walkthrough Slides

Voting Rules

Off Site Out-Brief

13 May, 04

Create Ship Change Document (SCD)
Box #10 - Level 3



Ref: 3049aUS

Approved Submitters

- Type Commanders
- OPNAV
- PEO’s
- PARM / LCM
- RMC’s
- CFFC

SHIP CHANGE DOCUMENT
PHASE I

CHANGE TRACKING NUMBER_XX-1**_____ Recommend Expedite**
DATE: 8 JUNE 2004_____ **CLASSIFIED/NOFORN:** YES____ NO _X_

□

1. SHIP CHANGE TITLE: REAL-TIME COMMUNICATION PROGRAM_
2. APPLICABLE SHIP/SHIP CLASS/SITES (INCLUDES SHORE FACILITIES): A
3. RECOMMENDED SCD:

a. Scope: (Check all that apply)

❑Internal Equipment Modification
X Ship Modification
❑Site Modification

b. Category (Check all that apply)

❑ HM&E
X C4I
❑CS
❑Computer Program/Software

c. Duration

X Permanent
❑Temporary

d. Funding

X Program
X Joint
❑Fleet
oJoint

SHIP CHANGE DOCUMENT
PHASE I

4. INITIATING POINT OF CONTACT: NAME_____ACTIVITY _____CODE_____
PHONE _____ EMAIL_____ DATE_____ N/A__X___

5. SUBMITTING POINT OF CONTACT: NAME_JOHN SMITH (PEO C4I) ACTIVITY JJJJ
CODE ZZ__PHONE (609) 333-2222 EMAIL:SMITH@NAV.COM__DATE 6/10/2004

6. PARM POINT OF CONTACT: NAME_____ACTIVITY_____CODE_____
PHONE_____ EMAIL _____ N/A FOR PROGRAMS_

7. TYCOM POINT OF CONTACT: NAME_N/A__ ACTIVITY____CODE ___ PHONE___ EMAIL_

8. TECHNICAL POINT OF CONTACT: NAME J.SHIP_ ACTIVITY JJJJ CODE _ZZZ_
PHONE _609 333-3322__ EMAIL_SHIP@NAV.COM__

9. DESCRIPTION OF CHANGE: _DEVELOP CHANGES THAT WILL TAKE ADVANTAGE OF THE LATEST TECHNOLOGY FOR REAL TIME DATA TRANSMISSIONS

10. IMPACT IF NOT ACCOMPLISHED: REAL-TIME HIGH CAPAC ITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY WILL BECOME OBSOLETE_

SHIP CHANGE DOCUMENT
PHASE I

11. REQUIREMENTS AND JUSTIFICATION OF CHANGE (CITE DOCUMENT/REC
IN NARRA

- ❑ Statutory Requirement
- ❑ Legislated Regulatory Requirement
- ❑ Environmental Requirement
- X Proposed Military Improvement
- ❑ Proposed Survivability Improvement
- X Reduction of Total Owner Ship Costs (R-TOC)
- X Battle Force Interoperability (BFI)
- ❑ Safety
- ❑ Mandatory Safety
- ❑ QOL/QOS
- ❑ Restoring Margins
- ❑ Contract Defect
- X Unavailable, Obsolete or Unreliable Equipment
- ❑ Testing and Trial Deficiency
- ❑ Top Management Attention/Top Management Initiative (TMA/TMI)
- ❑ Aviation Capability and Air Wing Compatibility
- ❑ Anti-Terrorism/Force Protection
- ❑ Other

Need/Purpose Narrative:
NEW STATE OF THE ART COMMUNICATION TECHNOLOGY

SHIP CHANGE DOCUMENT
PHASE I

12. DISTRIBUTIVE SYSTEMS/OTHER IMPACTS (Check at least one box)

	Yes	No
AC Plants/Chilled Water	X	
Electric Generation and Power Distribution Systems	X	
Topside Design/Mast Structure	X	
Fiber Optic Cable Plant	X	
Firemain		X
Weight & Moment Change	X	
IC Switchboard & Data Multiplex System	X	
Electrical (400 Hz)	X	
Potable Water		X
Fuel System		X
Air Systems		X
NETWORKS	X	
IC Circuits	X	

SHIP CHANGE DOCUMENT
PHASE I

HVAC	X	
Ships Characteristics Document change required	X	
Ship/Aviation Integration	X	
Storage Requirements		**X**
Dry Docking Required	**X**	
Certification Required	X	
SUBSAFE		**X**
Space Configuration	X	
Damage Control	X	
Software	X	
Weapons Systems	X	
Human Systems Integration (HSI)	**X**	
Hangar Bay/Flight Deck Encroachment		**X**
Integrated Logistics Support (ILS)	X	
Prior/Concurrent/Conjunctive Alts	X	
Ordnance Handling/Storage		**X**
Other (Systems/Equipment/Sites):		

SHIP CHANGE DOCUMENT
PHASE I

13. AFOM

SEA SHIELD

Force Protection

- XProtect against SOF & Terrorist Threats
- ❑Mitigate effects of CBRNE

Surface Warfare

- ❑Provide Self Defense against Surface Threats
- ❑Conduct Offensive Operations against Surface Threats

Under Sea Warfare

- ❑Provide Self Defense against Subsurface Threats
- ❑Neutralize Submarine threats in the Littorals
- ❑Neutralize open oceans Submarine Treats
- ❑Counter Minefields from deep to shallow water
- ❑Breach Minefields, Obstacles, and Barriers from very shallow water to the beach exit zone
- ❑Conduct Mining Operations

Theater Air and Missile Defense

- ❑Provide Self Defense against Air and Missile Threats
- ❑Provide Maritime Air and Missile Defense
- ❑Provide Overland Air and Missile Defense
- ❑Conduct Sea-Based Missile Defense

SHIP CHANGE DOCUMENT
PHASE I

Sea Strike

Strike

- ❑Conduct Strike OPS
- ❑Engage Fixed Land Targets
- ❑Engage Moving Land Targets
- ❑Conduct Special OPS
- ❑Provide Precision Targeting
- ❑Conduct Direct Action
- ❑Conduct Offensive Information Operations
- ❑Jam Potential Threats
- ❑Conduct Network Attacks
- ❑Provide Aircraft Survivability

Naval Fire Support

- ❑Provide Precision Fires
- ❑Provide High Volume Fires
- ❑Provide Extended Range Fires

Maneuver

- ❑Project/Reposition Forces
- ❑Assault Centers of Gravity and Critical Vulnerabilities
- ❑Conduct Concurrent/Follow-on Missions

Strategic Deterrence

- ❑Conduct Nuclear Strike
- ❑Provide Assured Survivability

SHIP CHANGE DOCUMENT
PHASE I

Sea Basing

- Close, Assemble, Employ, & Reconstitute
  - ❑Close the Force & Maintain Mobility
  - ❑Provide at Sea Arrival & Assembly
  - ❑Allow Selective Offload
  - ❑Reconstitute & Regenerate at Sea
- Provide Integrated Joint Logistics
  - ❑Provide Sustainment for Operations at Sea
  - ❑Provide Sustainment for Operations Ashore
  - ❑Provide Focused Logistics
  - ❑Provide Shipboard and Mobile Maintenance
  - ❑Provide Force Medical Services
  - ❑Provide Advance Base Support
- Preposition Joint Assets Afloat
  - ❑Integrate and Support Joint Personnel and Equipment
  - XProvide Afloat C2 Physical Infrastructure
  - ❑Provide AFSB Capability for Joint Operations

SHIP CHANGE DOCUMENT
PHASE I

FORCEnet

- Communications and Data Networks
  - X Provide Communication Infrastructure
  - ❑ Provide Network Protection
  - ❑ Provide Network Synchronization
  - X Provide Information Transfer
- Intel, Surveillance and Recon
  - X Conduct Sensor management and Information Processing
  - X Detect and ID Targets
  - ❑ Fixed Land Targets
  - ❑ Moving Land Targets
  - ❑ Air and Missile Targets
  - ❑ Surface Targets
    - oSubmarine Targets
    - oMines
  - ❑ Provide Cueing and Targeting Information
  - ❑ Assess Engagement Results
- Common Operational and Tactical Pictures
  - ❑ Provide Mission Planning
  - X Provide Battle Management Synchronization
  - ❑ Provide Common PNT and Environmental Info
  - ❑ Integrate and Distribute Sensor Info
  - ❑ Track and Facilitate Engagement of Time Sensitive Targets
  - ❑ Track and Facilitate Engagement of Non-Time Sensitive Targets

SHIP CHANGE DOCUMENT
PHASE I

14. Concept Development Cost Information:

SHIP CHANGE DOCUMENT
PHASE I

15. APPROVAL RECOMMENDATION:

		Recommended	Not Recomm
NUCLEAR POWER DIRECTORATE (As Required)			
Signature_____	**DATE** _____	_____	_____
SHIP PROGRAM MANAGER			
Signature XXXXX	**DATE** **15 JUN 04**	**X**	

Technical Review Comments:
Combine Phase II and III: N/A
Superceded or redundant changes: N/A
FORCENET compliant: N/A

Recommended Change Package (RCP)

Header Data (DP 1)	
Requirements / Impacts	**AFOM #**
Technical Assessment **Recommendations**	**Voting Block** **Recommend** **Non-recommend**
CBA	**Resource Sponsor** **Execution Plan**
Comments / Recommendations	

Recommended Change Package (RCP) Decision Point 1

CHANGE TRACKING NUMBER XX-1 **Expedite Approved**

SHIP CHANGE TITLE: REAL-TIME COMMUNICATION PROGRAM

DESCRIPTION OF CHANGE: DEVELOP CHANGES THAT WILL TAKE ADVANTAGE OF THE LATEST TECHNOLOGY FOR REAL TIME DATA TRANSMISSIONS

IMPACT IF NOT ACCOMPLISHED: REAL-TIME HIGH CAPAC ITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY WILL BECOME OBSOLETE_

APPLICABLE SHIP/SHIP CLASS/SITES: ALL

DATE: 8 JUNE 2004

Requirements / Impacts

Proposed Military Improvement

Reduction of Total Owner Ship Costs (R-TOC)

Battle Force Interoperability (BFI)

Unavailable, Obsolete or Unreliable Equipment

AFOM # 82

Capability: 82
QOS/QOL: 30
Sea Base: 21
Suitability: 55
Sea Strike: 21
Sea Shield: 92
ForceNet: 21

Technical Assessment

TAT has no issues with this change and recommends approval.

Recommend Combine Phase II and III: N/A

Superceded or redundant changes: N/A

This change is FORCENET compliant: N/A

Voting Block

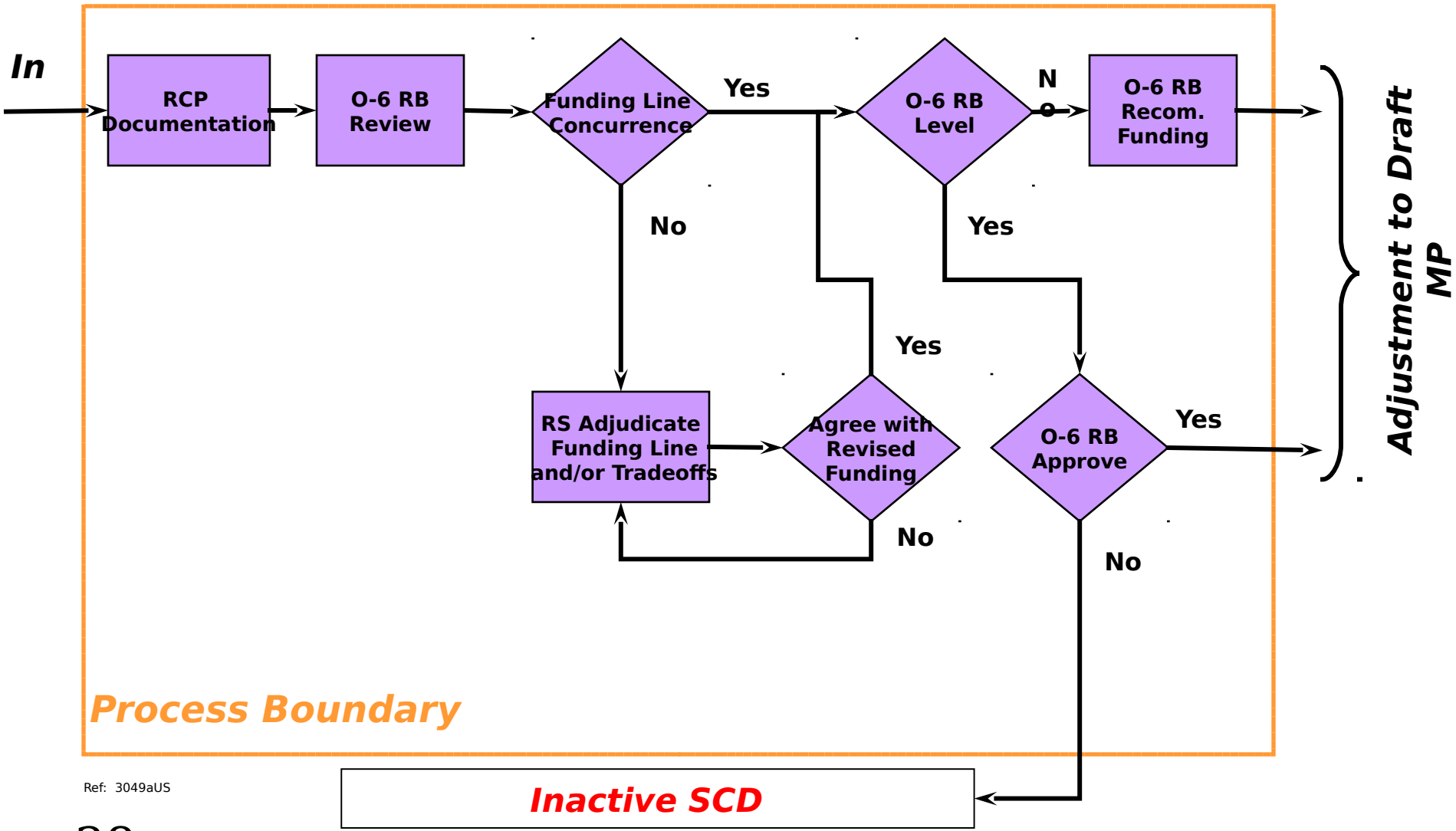
Recommend x

Non-recommend

CBA

Resource Sponsor NXX

Decision Point 1 – O6 Review Board
Authorize Funding for Prel. Engineering
(Box #60 - Level 3)



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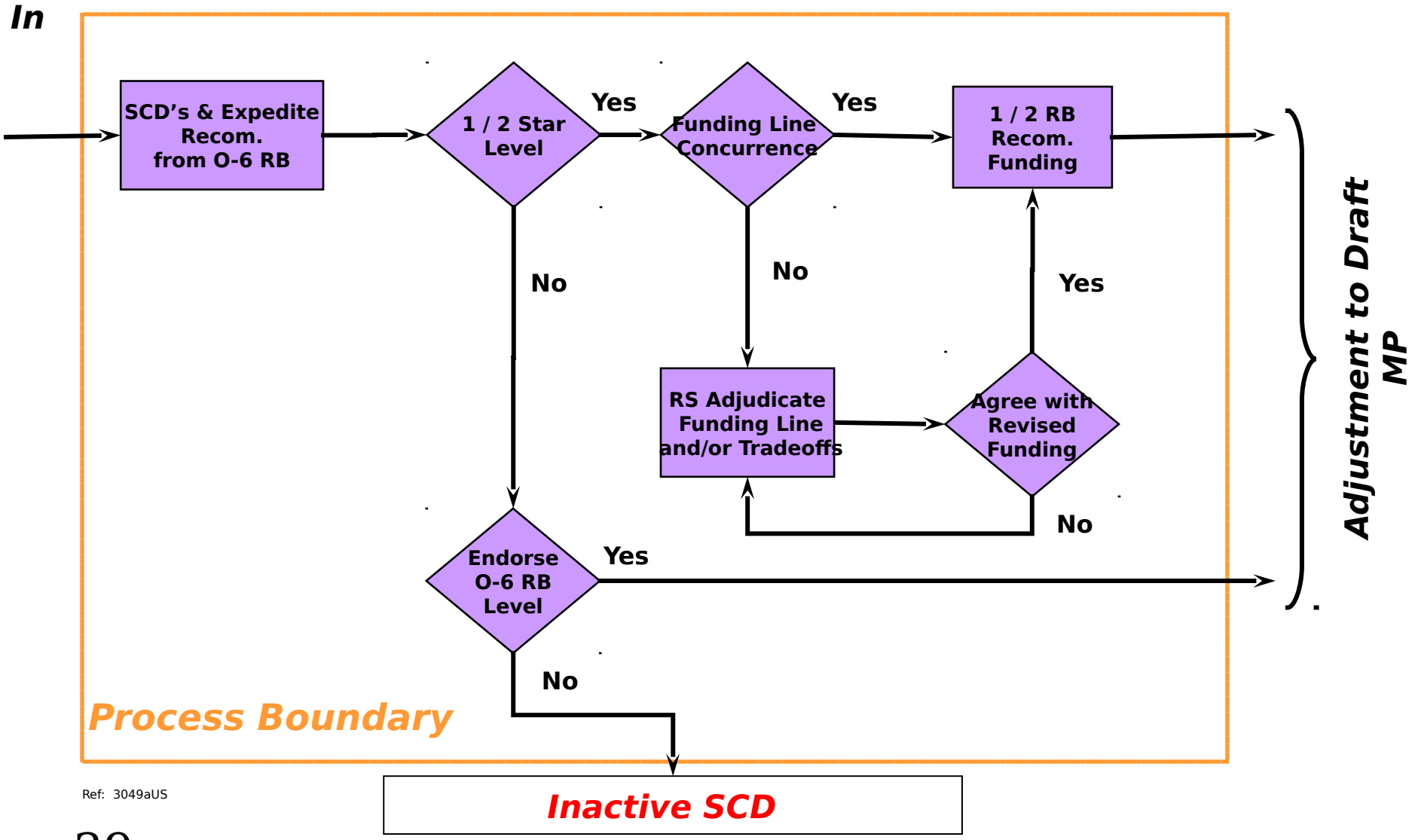
Decision Point 1 – 1 / 2 Star Review Board
Authorize Funding for Prel. Engineering
(Box #60 - Level 3)



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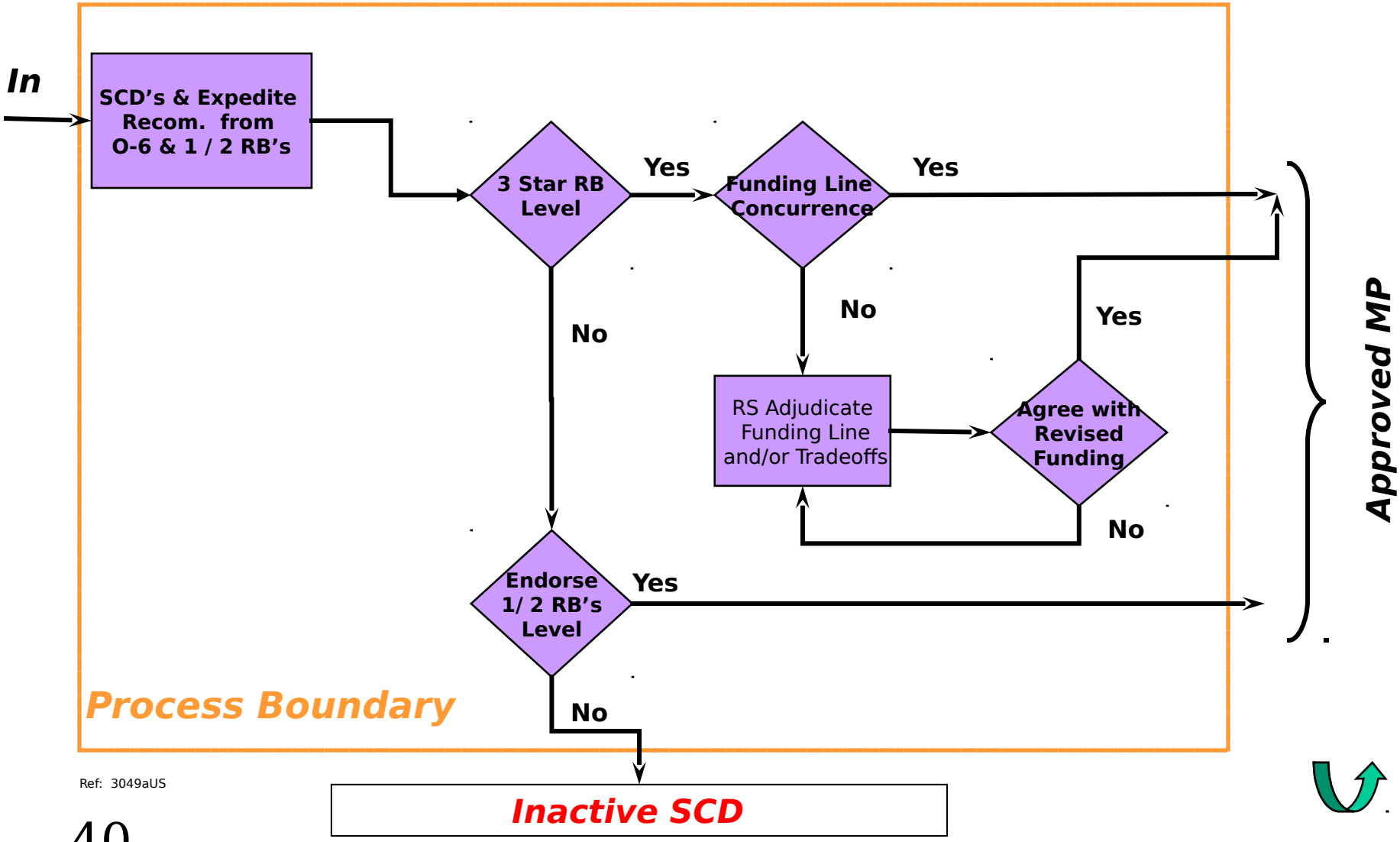
Decision Point 1 – 3 Star Review Board
Authorize Funding for Prel. Engineering
(Box #60 - Level 3)



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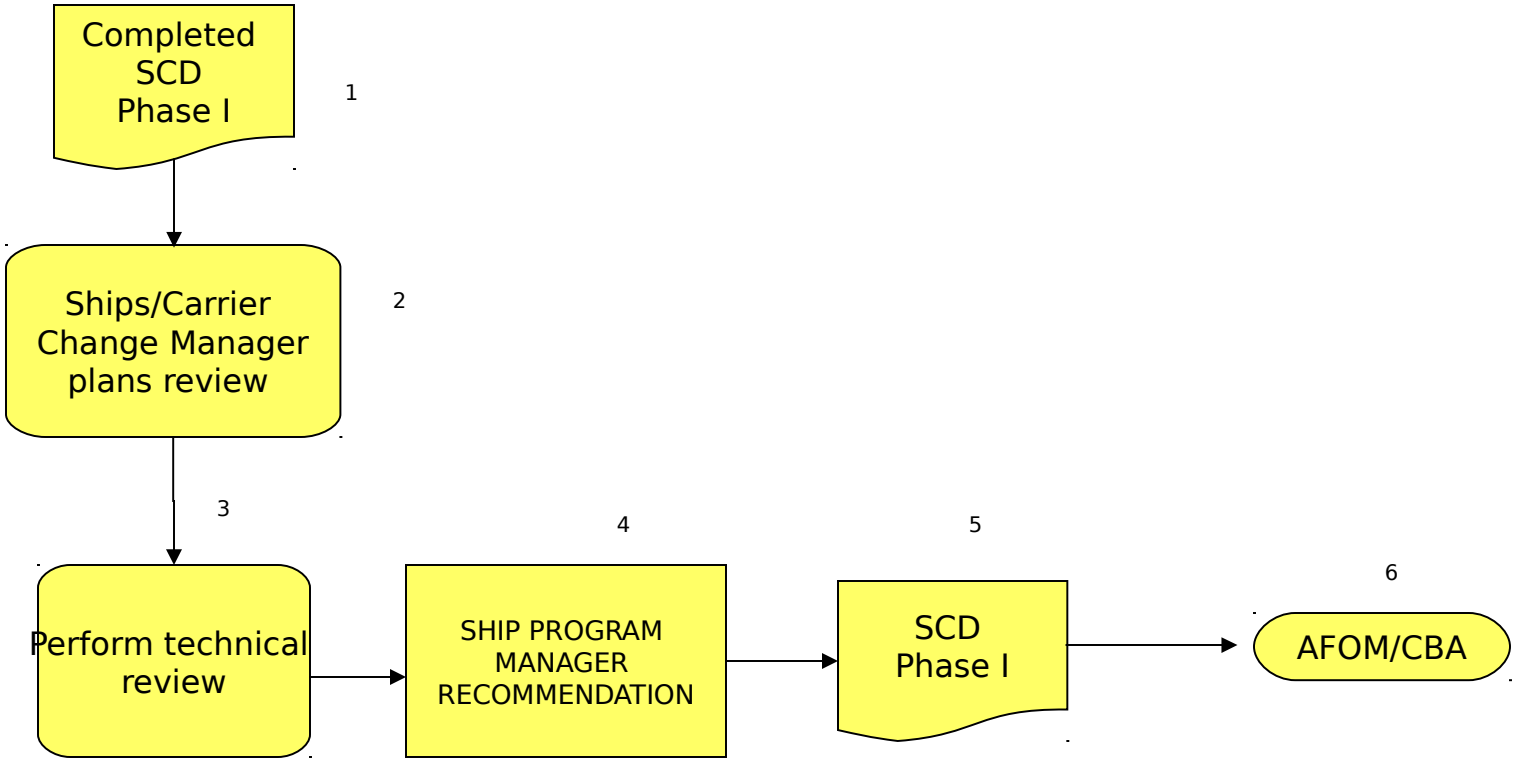
Tech Assessment

Technical Assessment Phase I



SHIPMAIN BLOCK 20

Phase II(a)

Phase II(a) - Guidelines

- **Guidelines for combining of phases II and III:**
  - **If the Scope is Internal Equipment Modification, all of the following criteria must be met:**
    - **The change can be accomplished without changing an interface external to the equipment or system**
    - **The change is made within the equipment or system**
    - **The change does not negatively impact Battle Force/Strike Force Interoperability**
    - **The change does not impact shipboard distributive systems, Ship Selected Records (SSRs) or interfacing equipment or systems, compartmental arrangement records; or Damage Control records.**

Phase II(a) – Guidelines (cont'd)

- **Guidelines for combining of phases II and III:**
  - **If the Scope is Ship Modification, all of the following criteria must be met:**
    - **The change does not negatively impact Battle Force/Strike Force Interoperability**
    - **The change does not impact ships stability records (weight & moment)**
    - **The change does not impact or alter the 3-dimensional footprint of the equipment being replaced**
    - **The change does not impact shipboard distributive systems, Ship Selected Records (SSRs) or interfacing equipment or systems, compartmental arrangement records; or Damage Control records**
    - **The change does not impact manning levels**

CFT 4 ENTITLED PROCESS TIMELINE

- **Assumptions:**
  - **Assume: 300 Ship Changes per Month**
  - **Time starts upon receipt by the Technical Assessment Team**
  - **There is no time limit for developing an idea, conducting preliminary engineering, and completing detailed design**
  - **All days are working days**

CFT 4 ENTITLED PROCESS TIMELINE

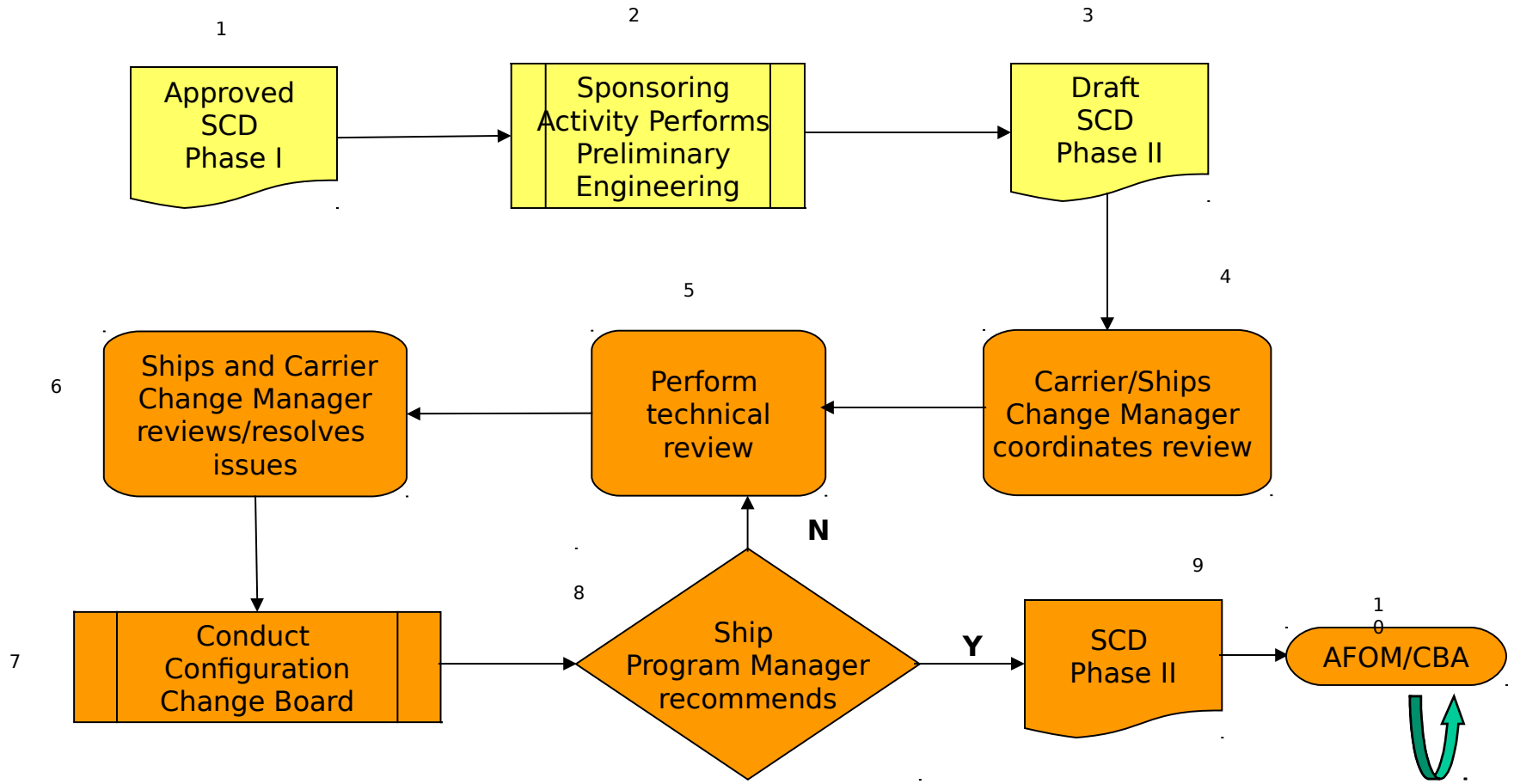
- Phase I: 8-24 Days
  - **Tech Assessment 2-5 Days**
  - **AFOM 1-7 Days**
  - **CBA 2-3 Days**
  - **Voting 3-12 Days**

- Phase II: 16-67 Days
  - **Tech Assessment 5-45 Days**
  - **AFOM 1-7 Days**
  - **CBA 7-10 Days**
  - **Voting 3-12 Days**

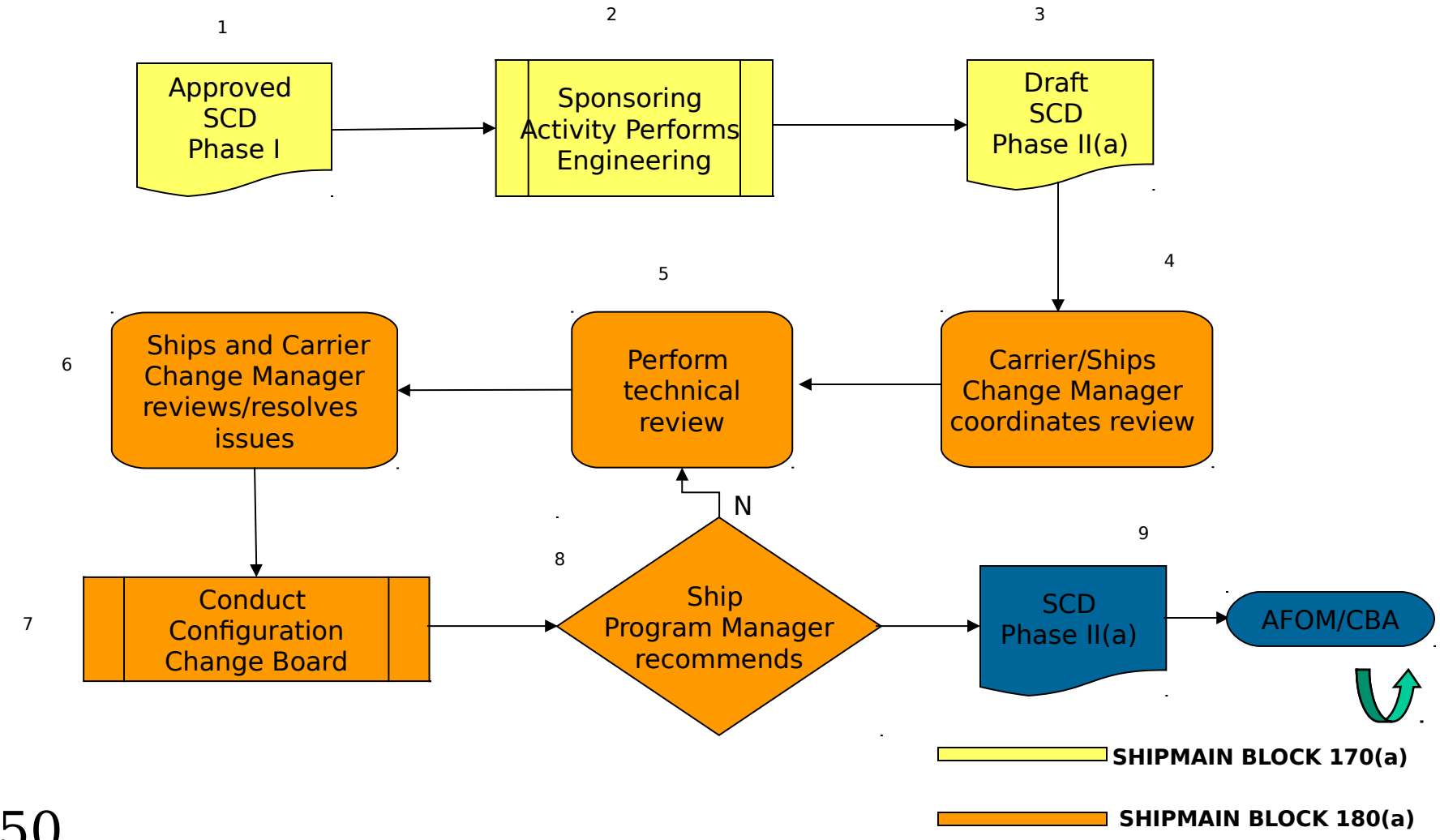
CFT 4 ENTITLED PROCESS TIMELINE

- Phase III: 21-82 Days
  - **Tech Assessment 10-60 Working Days**
  - **AFOM 1-7 Days**
  - **CBA 7-10 Days**
  - **Voting 3-12 Days**
- Phase II(a): 19-82 Days
  - **Tech Assessment 8-60 Days**
  - **AFOM 1-7 Days**
  - **CBA 7-10 Days**
  - **Voting 3-12 Days**

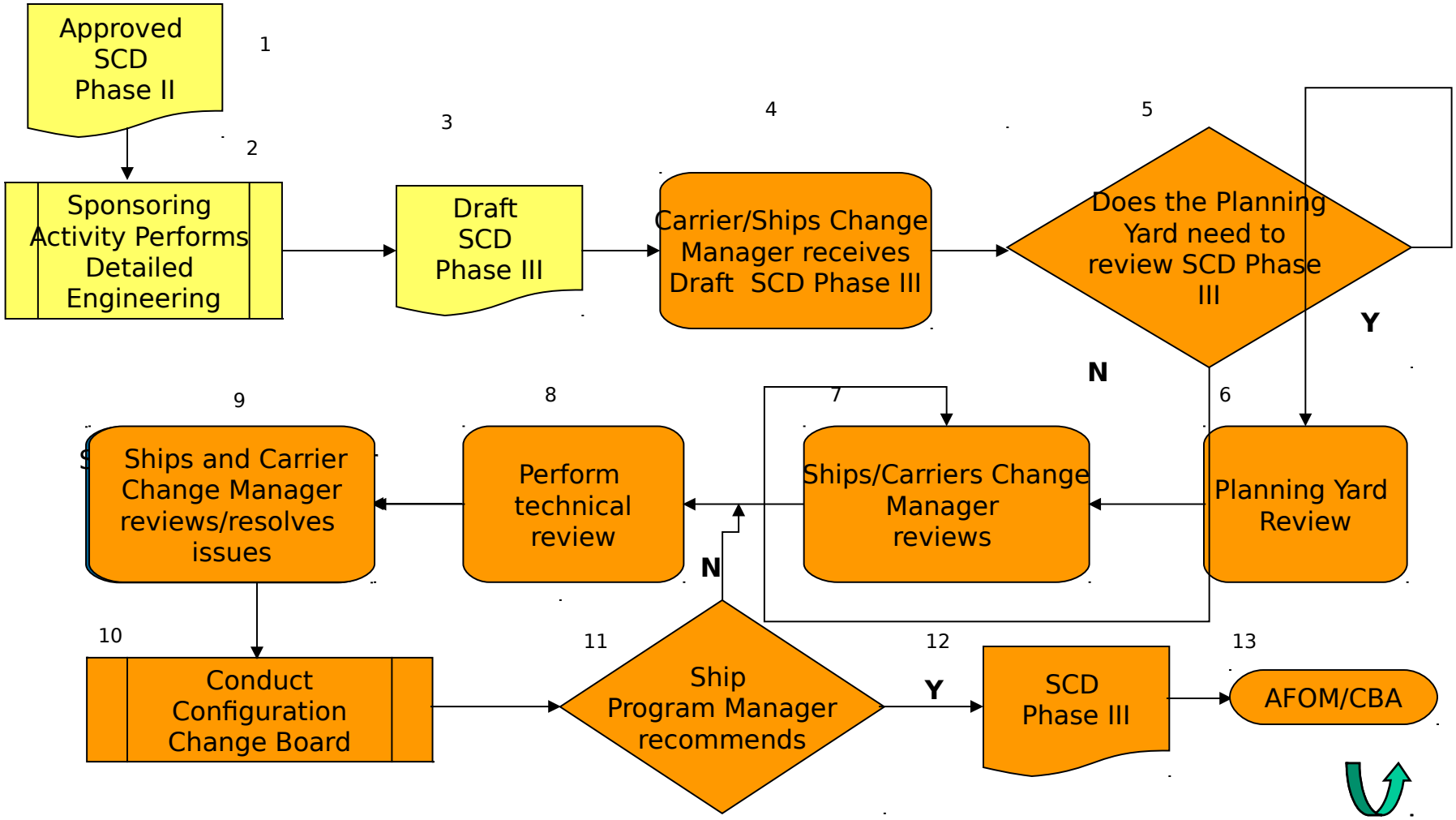
Technical Assessment Phase II



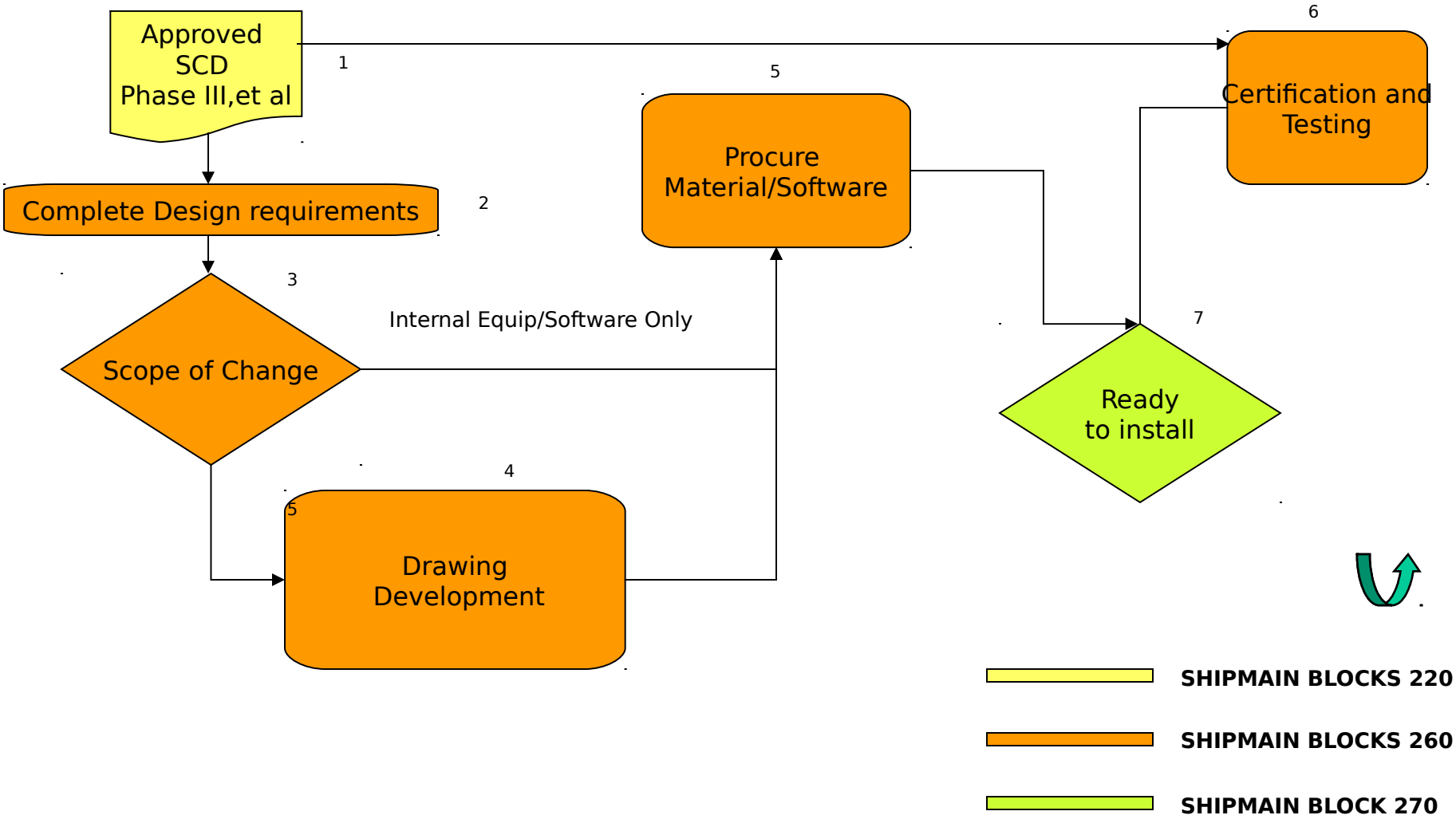
Technical Assessment Phase II(a)



Technical Assessment Phase III



Technical Implementation Phase IV



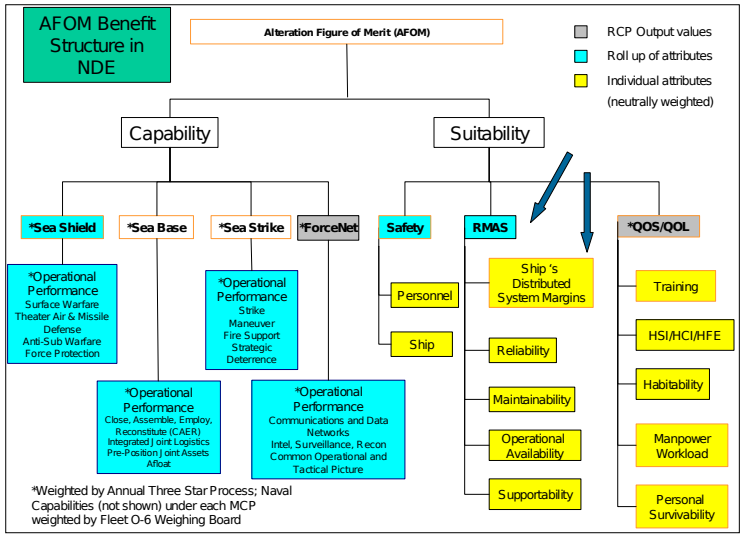
AFOM Process

SHIPMAIN AFOM CONOPS

umbered Fleet/TYCOM Priorities

NAVAL POWER 21

CFFC/CNO Annual Guidance (Precept Letter)



3-Star Board (Annual): Set Benefit Structure Weights for Naval Capability Packages and MCPs

Fleet O-6 Weighting Board (Annual): Set Benefit Structure Weights for Naval Capabilities

Ship Change Document (SCD)

(Weighted Benefit Structure in NDE): TYCOM(s) Assign Index Values to Naval Capabilities and Suitability Scales

Technical Assessm

ost Benefit Analys

Program or Fleet Alteration

AFOM Calculated by NDE

Decisio n Boards

Yes

No

O-6, 1-2 Star, 3-Star Decision Boards

Example Program Alteration through the Process

- **Example: CIWS Block IB**
- **Step 1: PARM enters AFOM specific data in SCD: Naval Capabilities Checklist**
  - **Unique Identifiers parsed from other portions of SCD (T, F, etc.)**
- **Step 2: SPM sends (autoforward once TA complete) to appropriate TYCOM based on business rules for HM&E, C5I etc.**
- **Step 3: Capabilities Mapping notifies TYCOM of which Scales to use for assigning Index Values in AFOM Benefit Structure**
  - **All Eleven (11) Suitability Scales used for every SCD**
- **Step 4: TYCOM canvasses Staff SMEs (and others) for information**
- **Step 5: TYCOM assigns Index values for all Suitability and Specific Naval Capabilities (from Step 1 mapping) into NDE**
- **Output: AFOM Calculated by NDE**

	1	2	3	4	5	6	7
Attribute	Significant Degradation	Degradation	Marginal Degradation	No change	Marginal Improvement	Improvement	Significant Improvement
Provide Self Defense Against Surface Threats							X

Standard Index Scale

Sea Shield (F1)

Force Protection (F2)

- ✓ **Protect Against SOF and Terrorist Threats (W1)**
- **Mitigate Effects of CBRNE**

Surface Warfare (F3)

- ✓ **Provide Self-Defense Against Surface Threats (W2)**
- **Conduct Offensive Operations against Surface Threats**

Under Sea Warfare (F4)

- **Provide Self-Defense Against Subsurface Threats**
- **Neutralize Submarine Threats in the Littorals**
- **Neutralize Open Ocean Submarine Threats**
- **Counter Minefields from Deep to Shallow Water**
- **Breach Minefields, Obstacles, and Barriers from Very Shallow Water to the Beach Exit Zone**
- **Conduct Mining Operations**

Theater Air and Missile Defense (F5)

- ✓ **Provide Self-Defense Against Air and Missile Threats (W3)**
- **Provide Maritime Air and Missile Defense**
- **Provide Overland Air and Missile Defense**
- **Conduct Sea-Based Missile Defense**

Example: CIWS 1B TYCOM Rating (as mapped to SCD by PARM and validated by TYCOM)

Sea Shield Capabilities SCD Checklist

W1-W3: Annual Weights established by O-6 Fleet Weighting Board

F1-F4: Annual Weight Established by 3-Star Board

Example RMAS Suitability Indexing by TYCOM for CIWS 1B

	1	2	3	4	5	6	7
Attribute	**Significant Degradation**	**Degradation**	**Marginal Degradation**	**No change**	**Marginal Improvement**	**Improvement**	**Significant Improvement**
Reliability						X	
Maintainability						X	
Operational Availability						X	
Supportability					X		
Ship Distributed Systems Margins				X			

QOS/QOL, Safety, etc. Portions of Suitability Structure Receive Same Assessment by TYCOM

Example Decision Board AFOM Output to Recommended Change Package (RCP) for CIWS IB

(X) = Unique Flags Set by PARM/SPM/Submitter:

(S) Statutory

(F) Expedite

(T) TMA/TMI

(R) Regulatory

(C) Conjunctive

(J) Joint Interop.

Overall AFOM: 80 (F)

Capability: 82

- Sea Base: 21
- Sea Strike: 21
- Sea Shield: 92
- ForceNet:21

QOS/QOL:30

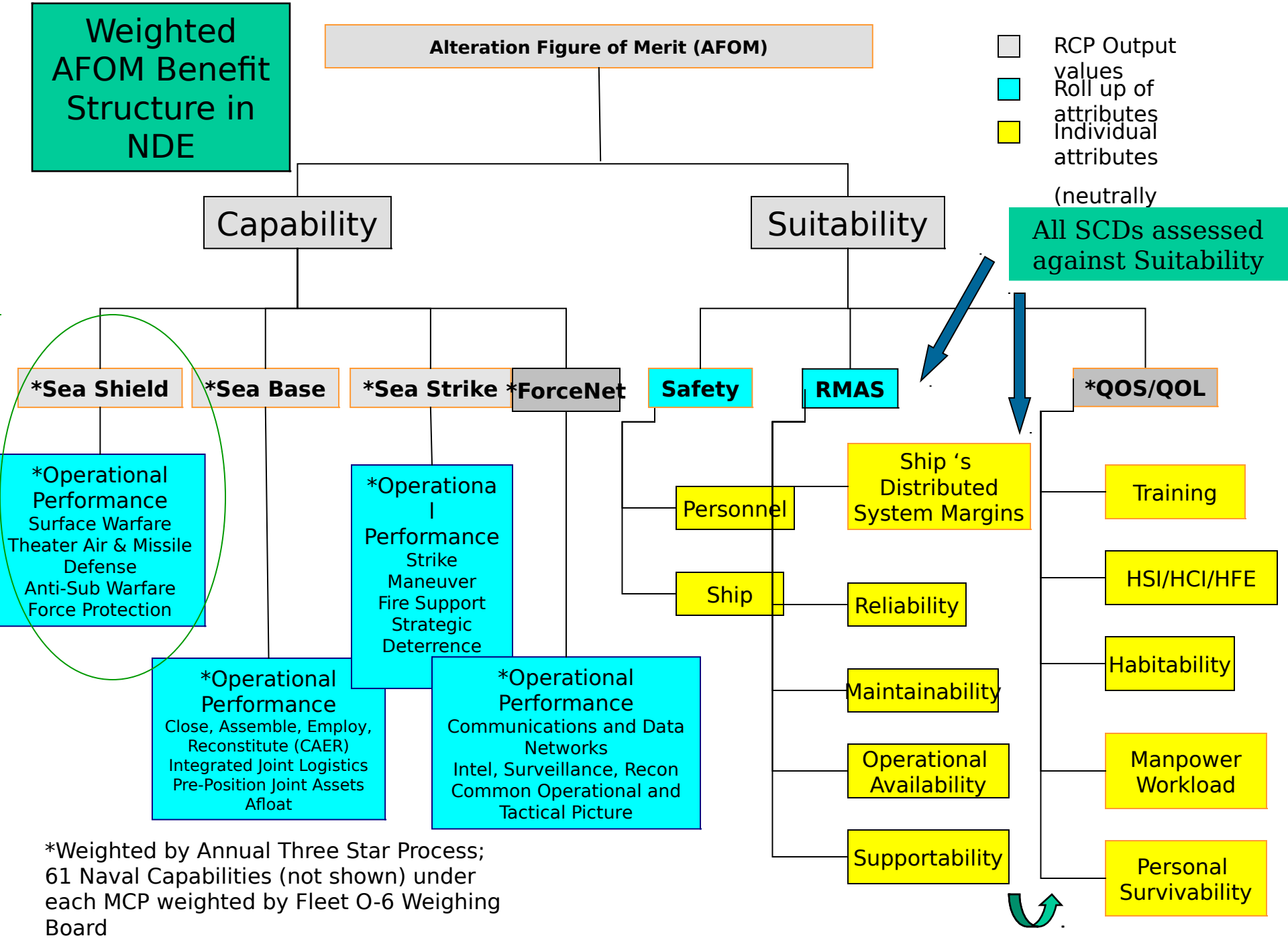
Suitability: 78

Not Actual Values

Comments (From TYCOM): “CIWS IB provides increased operational capability for defeating swarming small boats as well as improved reliability and maintainability”

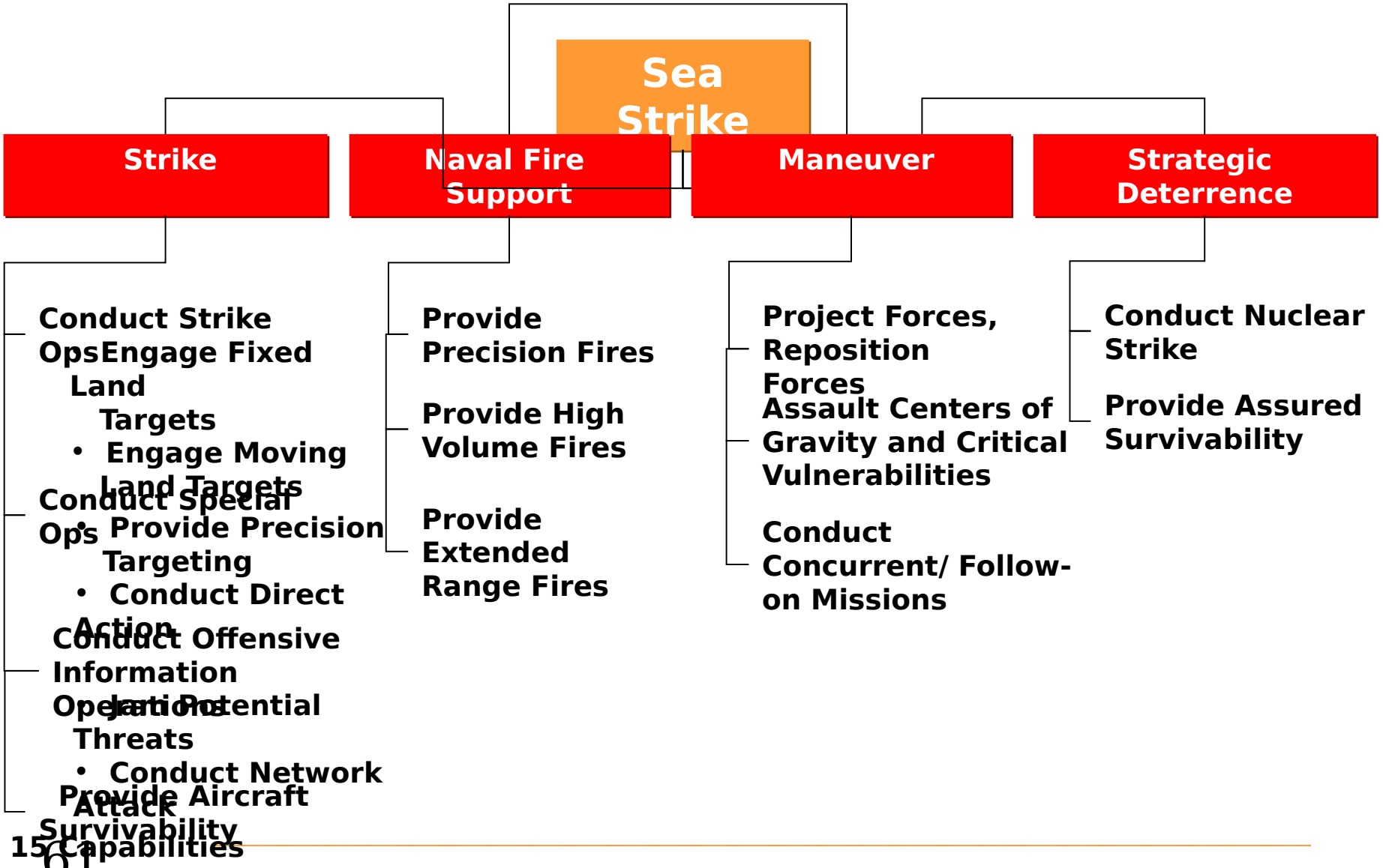
BACK-UP

Weighted AFOM Benefit Structure in NDE

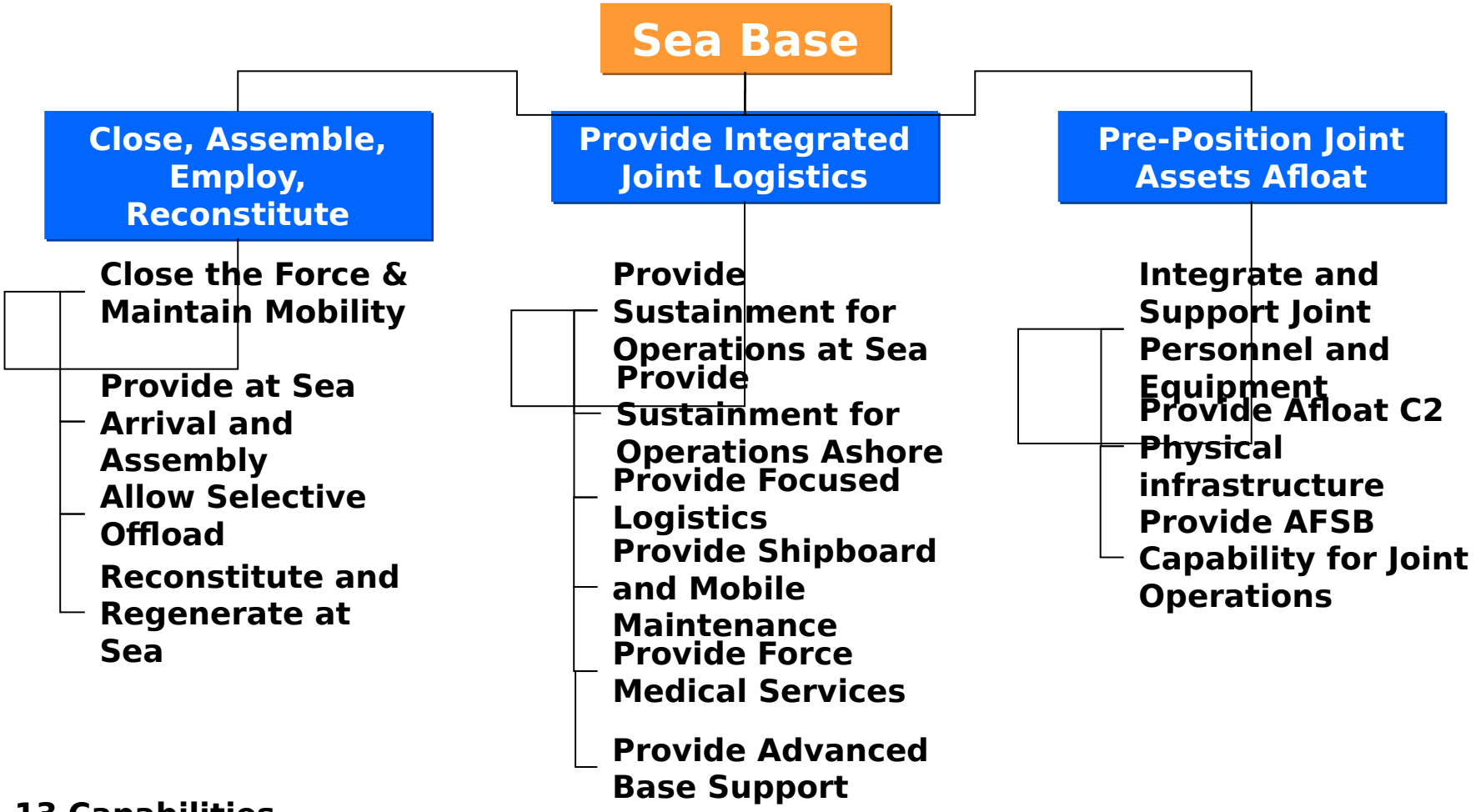


*Weighted by Annual Three Star Process; 61 Naval Capabilities (not shown) under each MCP weighted by Fleet O-6 Weighing Board

Sea Strike MCP Capabilities

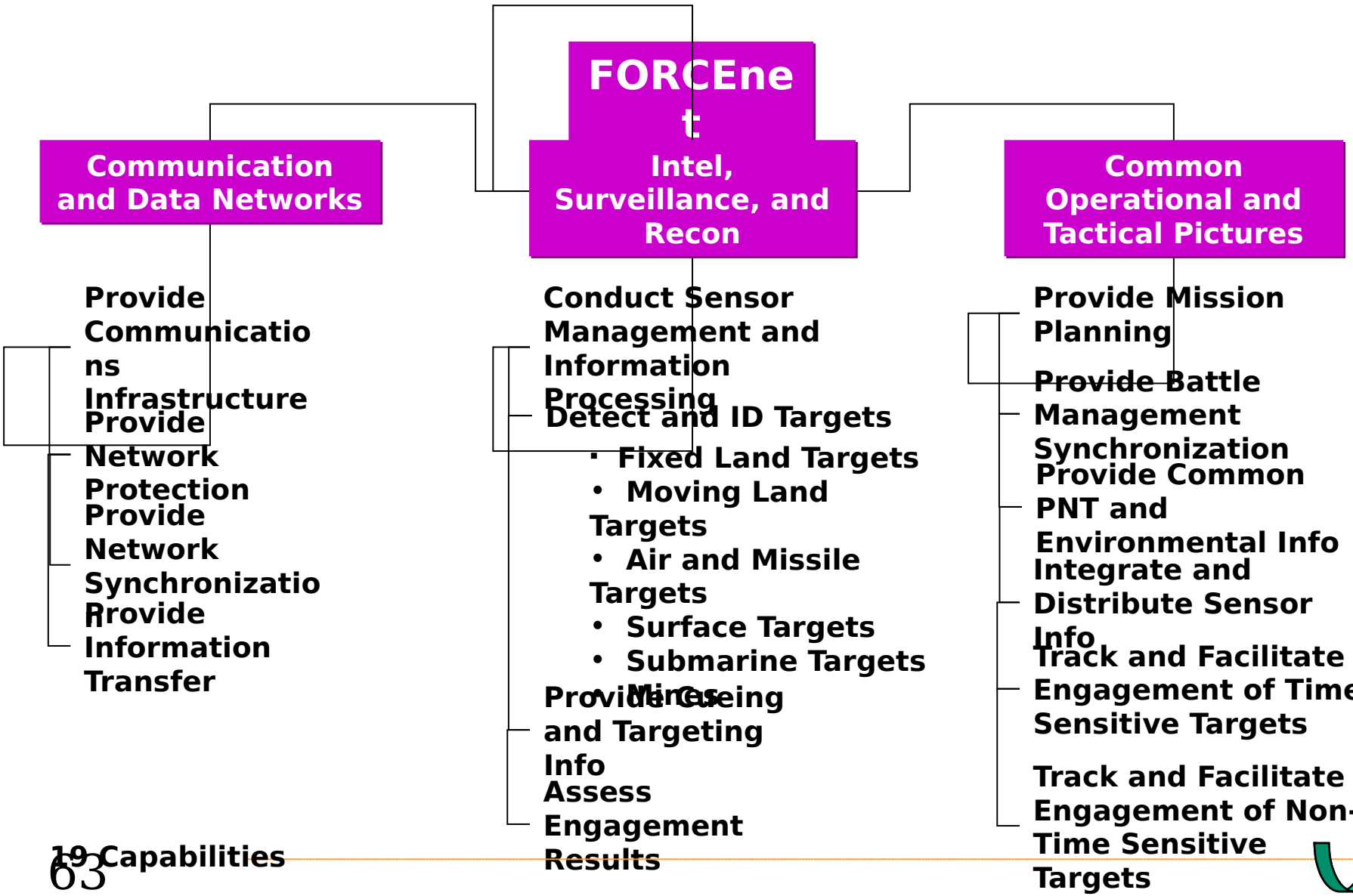


Sea Base MCP Capabilities


Sea Base
Close, Assemble, Employ, Reconstitute
Close the Force & Maintain Mobility
Provide at Sea Arrival and Assembly
Allow Selective Offload
Reconstitute and Regenerate at Sea
Provide Integrated Joint Logistics
Provide Sustainment for Operations at Sea
Provide Sustainment for Operations Ashore
Provide Focused Logistics
Provide Shipboard and Mobile Maintenance
Provide Force Medical Services
Provide Advanced Base Support
Pre-Position Joint Assets Afloat
Integrate and Support Joint Personnel and Equipment
Provide Afloat C2
Physical infrastructure
Provide AFSB Capability for Joint Operations

13 Capabilities

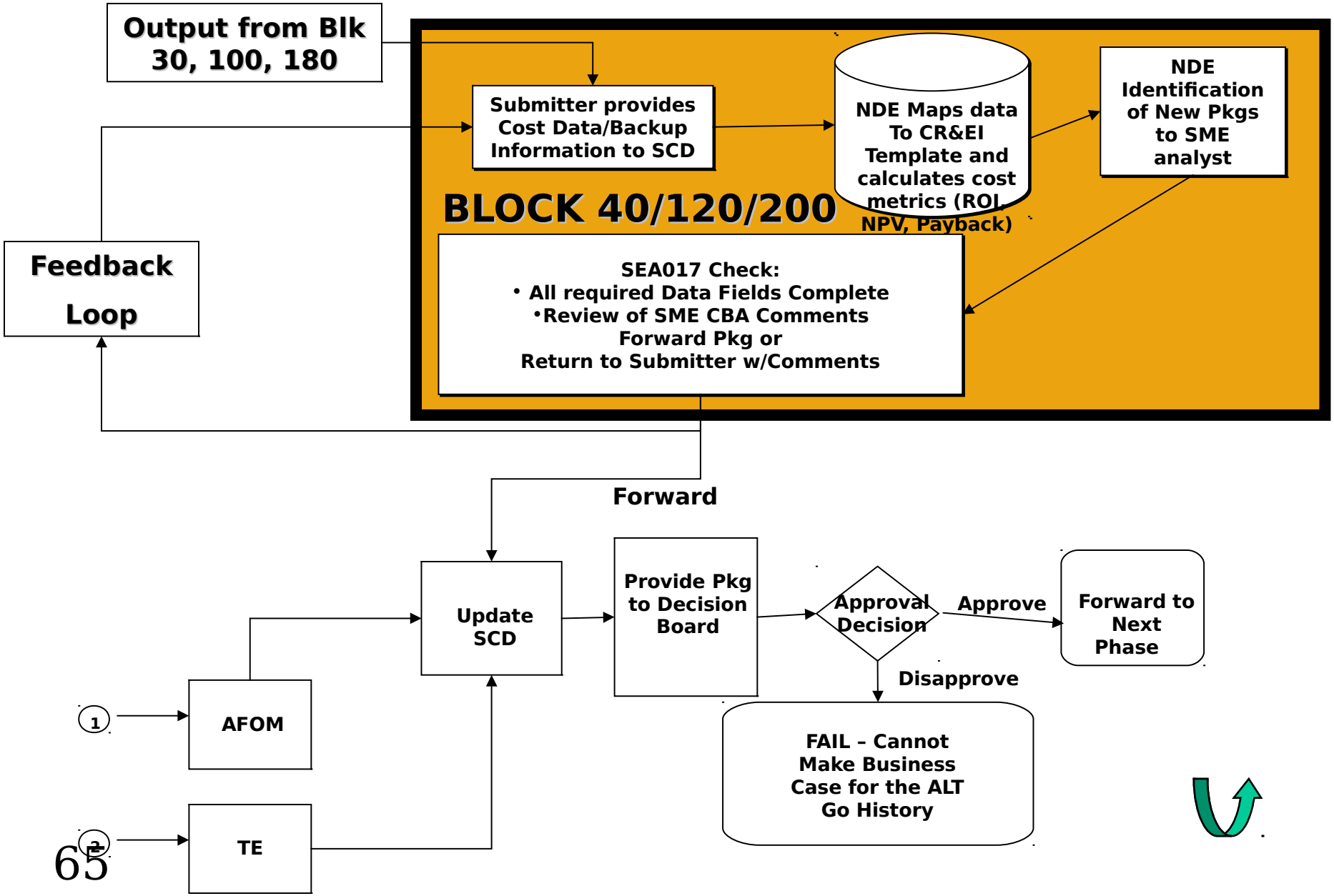
FORCEnet MCP Capabilities


FORCEnet
Communication and Data Networks
Intel, Surveillance, and Recon
Common Operational and Tactical Pictures
Provide Communications Infrastructure
Provide Network Protection
Provide Network Synchronization
Provide Information Transfer
Conduct Sensor Management and Information Processing
Detect and ID Targets
• Fixed Land Targets
• Moving Land Targets
• Air and Missile Targets
• Surface Targets
• Submarine Targets
• Mines
Provide Cueing and Targeting Info
Assess Engagement Results
Provide Mission Planning
Provide Battle Management Synchronization
Provide Common PNT and Environmental Info
Integrate and Distribute Sensor Info
Track and Facilitate Engagement of Time Sensitive Targets
Track and Facilitate Engagement of Non-Time Sensitive Targets

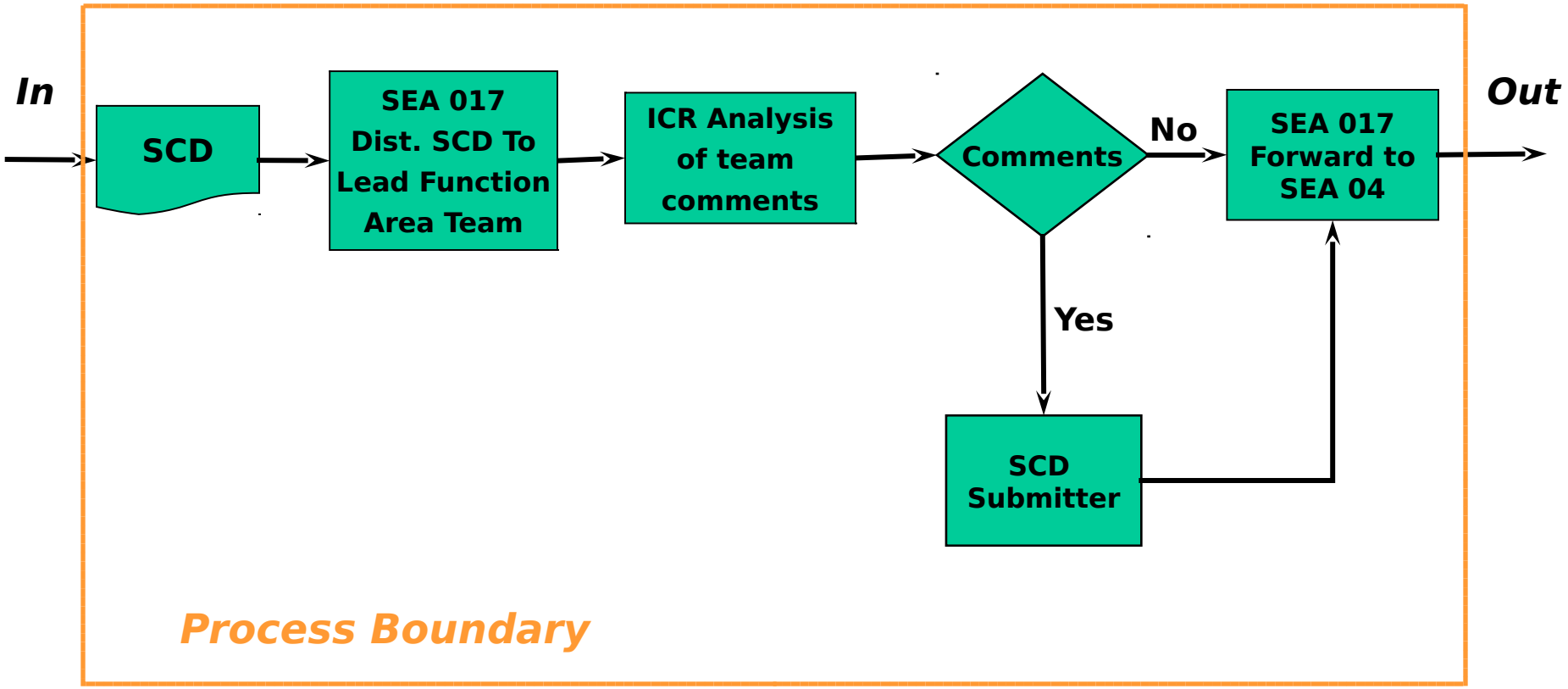
19 Capabilities

CBA Overview

CBA Process Flow, Blks 40/120/200



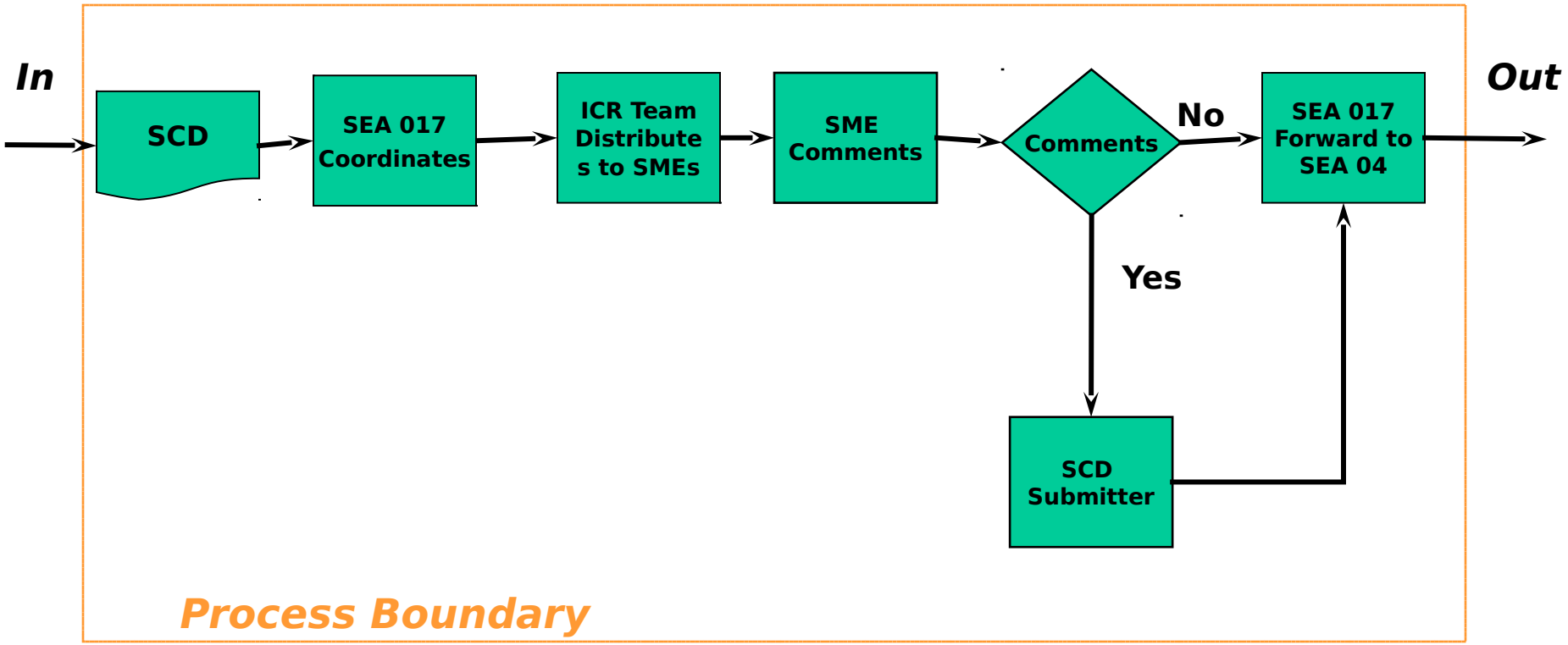
Cost Benefit Analysis (CBA)
Box #40 - Level 3



Process Cycle Time
2 - 3 Working Days

Ref: 3049aUS

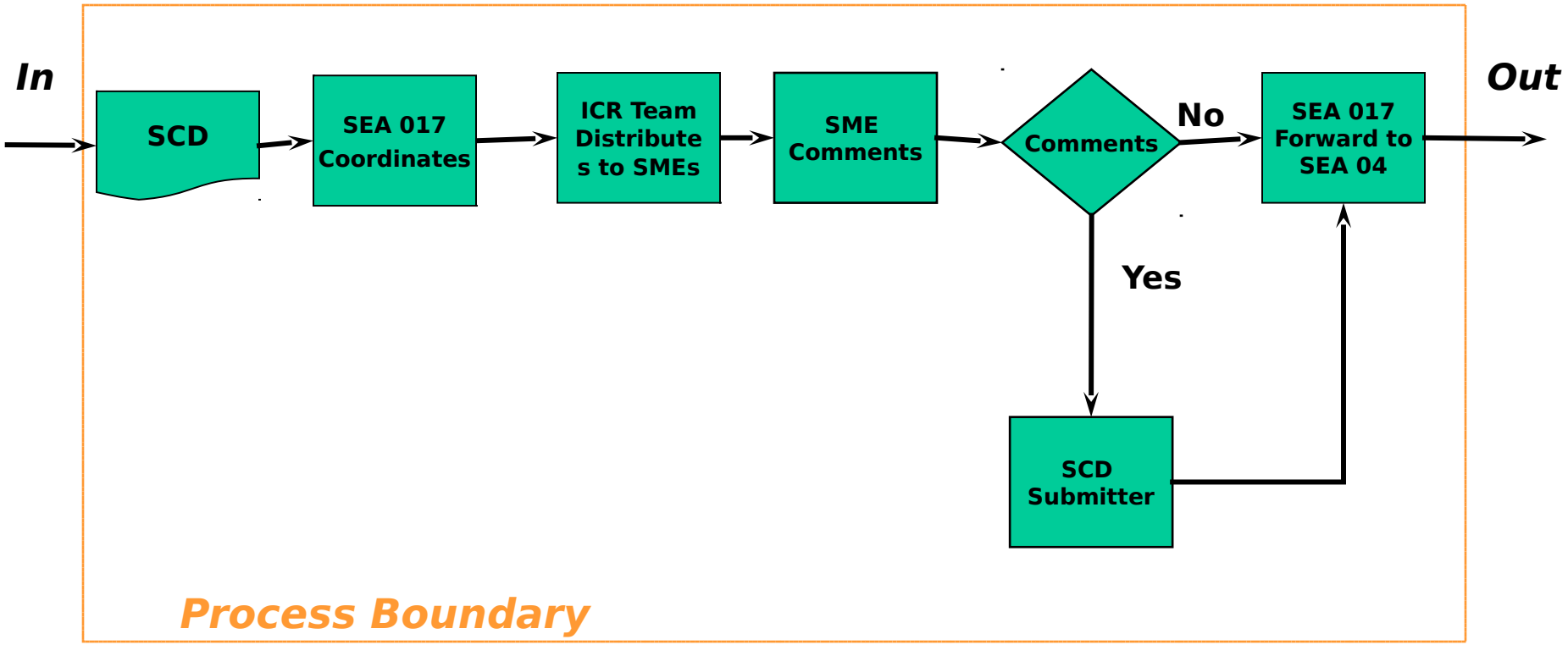
Update Cost Benefit Analysis (CBA)
Box #120 - Level 3



Process Cycle Time
7 – 10 Working Days

Ref: 3049aUS

Update Cost Benefit Analysis (CBA)
Box #200 - Level 3



Process Cycle Time
7 – 10 Working Days

Ref: 3049aUS

CFT ENTITLED PROCESS PHASE II SHIP CHANGE

SHIP CHANGE DOCUMENT
PHASE II

CHANGE TRACKING NUMBER XX-1.1 **Expedite** Approved

SHIP CHANGE TITLE: REAL-TIME COMMUNICATION GIZMO

DESCRIPTION OF CHANGE: INSTALL TWO (2) RACKS OF EQUIPMENT AND A LASER TRANCEIVER

IMPACT IF NOT ACCOMPLISHED: NO REAL-TIME HIGH CAPACITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY

APPLICABLE SHIP/SHIP CLASS/SITES: LHD, DDG

DATE: 8 JUNE 2004

1. LIST APPLICABLE SHIP(s) WITHIN 5-YEAR DECOMMISIONING WINDOW: NON

2. DISTRIBUTIVE SYSTEMS IMPACT: (check box that applies)

	Net Increase	Net Decrease	No Net Impact	Unknown
AC Plants/Chilled Water	X			
Electric Generation and Power Distribution Systems	X			
Topside Design/Mast Structure	X			
Fiber Optic Cable Plant	X			
Firemain			X	
Weight & Moment Change	X			

SHIP CHANGE DOCUMENT
PHASE II

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DATE: **8 JUNE 2004**

3. OTHER CONSIDERATIONS (IF YES, PROVIDE EXPLANATION):

Topside: Yes No

Explanation: First time laser sensor will introduce physical blockage and safety considerations.

Ship Characteristics Document change required: Yes No

Explanation: Will impacts SSRs.

Ship/Aviation Integration Impact: Yes No

Explanation: N/A

Storage Requirements: Yes No

Explanation: N/A

Dry Docking Required: Yes No

Explanation: Precision leveling required.

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DATE: **8 JUNE 2004**

Certification Required: Yes No

Explanation (include responsible activity): Topside, Safety, and Security. (NAVSEA and PEO-SHIPS)

SUBSAFE Impact: Yes No N/A

Network Impact: Yes No

Explanation: Will integrate into C4I LAN for information distribution throughout various ship spaces.

Fuel System Impact: Yes No

Explanation: N/A

IC Circuits Impact: Yes No

Explanation: Navigation Data required for positioning information.

MCS/DCS Impact: Yes No

Explanation:

SHIP CHANGE DOCUMENT
PHASE II

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APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

Software Impact: Yes No

Explanation: LAN integration into C4I Network.

Weapons Systems Impact: Yes No

Explanation: N/A

Space Configuration: Yes No

Explanation: Reconfiguration of Radio room.

Hangar Bay/Flight Deck Impact: Yes No

Explanation: N/A

Air Systems: Yes No

Explanation: N/A

Ordnance Handling/Storage: Yes No

Explanation: N/A

Other: _NONE___

Explanation: N/A

SHIP CHANGE DOCUMENT
PHASE II

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DATE: 8 JUNE 2004

4. SHOCK, VIBRATION AND EMI REQUIREMENTS:

Shock Grade (check one in accordance with the GSO section 072): A B C N/A

Compliant with MIL-STD-167-1 Type 1 Vibration Requirements (check one): Yes No N/A

Compliant with MIL-STD-461 EMI Requirements (check one): Yes No N/A

Compliant with MIL-STD-464 EMI Requirements (check one): Yes No Tailored (specifics appended) N/A

Compliant with OPNAVINST-2400.20 RF Spectrum Management Requirements: Yes No N/A

Compliant with HERO/HERP/HERF (NAVSEA OP 3565) Requirements (check one): Yes No N/A

Remarks:

SHIP CHANGE DOCUMENT
PHASE II

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APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

5. INTEGRATED LOGISTICS SUPPORT (ILS) IMPACT (check all that apply)

- ❑ **Technical Manuals**
- ❑ **Provisioning**
- ❑ **Planned Maintenance System (PMS)**
- ❑ **Ship's Selected Records (Drawings & Manuals)**
- ❑ **Operating Sequencing Systems (OSS)**
- ❑ **Steam Plant Manual (SPM)**
- ❑ **Test Equipment**
- ❑ **Software management**
- ❑ **Specify software support activity: _____**
- ❑ **Spares Affected**
- ❑ **Specify responsible activity: _____**
- ❑ **COTS/NDI**
- ❑ **Facilities**
- ❑ **Other (Specify):**

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PHASE II

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APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

6. HUMAN SYSTEMS INTEGRATION (HSI) IMPACTS:

Manpower /Workload Impact: **Yes** / **No**
Brief Description:
Personnel Impact: **Yes** / **No**
Brief Description:
Training Impact: **Yes** / **No**
Brief Description:
Human Factors Engineering (HFE): **Yes** / **No**
Brief Description:
Habitability: Yes / **No**
Brief Description:
Environment, Safety and Occupational Health (ESOH): Yes / **No**
Brief Description:
Personnel Survivability: Yes / **No**

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PHASE II

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DATE: 8 JUNE 2004

7. CRITICAL MATERIAL: _____

8. PRIOR, CONJUNCTIVE OR CONCURRENT CHANGE ACCOMPLISHMENT (LIST ANY CHANGE THAT APPLIES): _____

9. ESWBS _____

10. DETAIL DESIGN CRITERIA: (Check all that apply)

- ❑ **Ship Specification**
- ❑ **Deep Diving General Overhaul Specification**
- ❑ **General Specifications for Overhaul (GSO)**
- ❑ **Other (Specify)**_____

11. PROTOTYPE REQUIRED:

Yes__X___ **No**_____

Approx Time Required Onboard___One Deployment

SHIP CHANGE DOCUMENT
PHASE II

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DATE: 8 JUNE 2004

12. AFOM

13. CBA INFORMATION

14. APPROVAL RECOMMENDATION: Rec Not Rec Rec Re-Work

NUCLEAR POWER DIRECTORATE (As Required)

Signature_____ DATE_____ _____ _____ _____

SHIP PROGRAM MANAGER

Signature ___DATE_____ _____ _____ _____

Technical Review Comments:

SHIP CHANGE DOCUMENT
PHASE II

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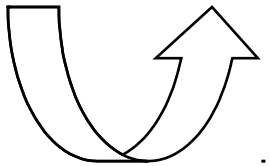
APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

Technical Review Comments: TAT has no issues with this change and provides the following information per the business rules:

- No Superceded or redundant changes
- This change is FORCENET compliant
- Prototype required
- No conjunctive changes
- Identify activity to develop Phase III SCD.(NSWC Dahlgren)
- Supporting documentation required (TDP, Test Memos)



CFT ENTITLED PROCESS
PHASE III SHIP CHANGE

SHIP CHANGE DOCUMENT
PHASE III

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APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

1. **SYSTEM/EQUIPMENT DESIGNATION:** **POSITIONED ON STAND IN THE MIDDLE OF THE ISLAND, PORT SIDE, FWD**
2. **MODEL NO.** **ZZZ-ABC-123**
3. **CAGE CODE:** **XOXOXOXOX**
4. **DETAILED DESCRIPTION OF CHANGE:**_____

SHIP CHANGE DOCUMENT
PHASE III

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APPLICABLE SHIP/SHIP CLASS/SITES: LHD, DDG

DATE: 8 JUNE 2004

5. DISTRIBUTIVE SYSTEMS IMPACT: TO BE COMPLETED BY PLANNING YARD

	Added	Removed
A/C Plants / Chilled Water Dist (Tons A/C)		
(CHW GPM)		
Electrical Generation and Power Dist Sys (kW)		
Topside Design / Mast Structure (Weight in Tons)		
Fiber Optic Cable Plant (Yes / No)		
Firemain (GPM)		
Ship's Stability (Weight in Tons)		
IC SWBD and Database Multiplex Sys (Loads)		

SHIP CHANGE DOCUMENT
PHASE III

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APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

6. **ARE THERE REFERENCES/SUPPORTING DOCUMENTATION IN ADDITION TO STANDARD REQUIREMENTS?** **Yes** _X_ No_____
7. **ESTIMATED WEIGHT AND MOMENT:** **TO BE COMPLETED BY PLANNING YARD**

WEIGHT	VCG	LCG	TCG
Stability Statement			

SHIP CHANGE DOCUMENT
PHASE III

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SHIP CHANGE DOCUMENT
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APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

8. CHANGE MATERIAL/SOFTWARE LIST:

ITEM NO.	DESCRIPTION	UNIT OF ISSUE	QUANTITY	PROCURING ACTIVITY
1	72” A&J RACK	1	2	PEO-C4I
2	LASER EQUIPMENT SUITE	1	1	PEO-C4I
3	3-D DISPLAY	1	1	PEO-C4I
4	FIBER OPTIC CABLE	500 FT	1	SSC-SD

9. ARE THERE QUALITY ASSURANCE REQUIREMENTS IN ADDITION TO STANDARD REQUIREMENTS? **Yes** **X** No_____
If Yes, List Requirements: **INSTALL AS PER 9090-310**

SHIP CHANGE DOCUMENT
PHASE III

CHANGE TRACKING NUMBER **XX-1.1** **Expedite Approved**
SHIP CHANGE TITLE: **REAL-TIME COMMUNICATION GIZMO**

DESCRIPTION OF CHANGE: INSTALL TWO (2) RACKS OF EQUIPMENT AND A LASER TRANCEIVER

IMPACT IF NOT ACCOMPLISHED: NO REAL-TIME HIGH CAPACITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY_

APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

11. SPECIAL DISPOSITION REQUIREMENTS FOR REMOVED MATERIAL:

MATERIAL	DISPOSITION
CONNECTORS	Turn into recycling
PAINT	Dispose IAW will hazardous waste instructions

12. INSTALLATION SUPPORT AND TEST EQUIPMENT: **SSCSD CODE ???(USED ON MR. ISI GIZMO TEST SET**
13. SHIPBOARD STOWAGE DETAILS: **NONE**
14. NAVSEA SHIP INSTALLATION DRAWING (SID) REVIEW REQUIRED: **YES X** NO___

SHIP CHANGE DOCUMENT
PHASE III

CHANGE TRACKING NUMBER XX-1.1 **Expedite Approved**

SHIP CHANGE TITLE: REAL-TIME COMMUNICATION GIZMO

DESCRIPTION OF CHANGE: INSTALL TWO (2) RACKS OF EQUIPMENT AND A LASER TRANCEIVER

IMPACT IF NOT ACCOMPLISHED: NO REAL-TIME HIGH CAPACITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY

APPLICABLE SHIP/SHIP CLASS/SITES: LHD, DDG
DATE: 8 JUNE 2004

13. SHIPBOARD STOWAGE DETAILS: NONE

14. NAVSEA SHIP INSTALLATION DRAWING (SID) REVIEW REQUIRED: YES X NO____

15. SPECIAL INDUSTRIAL STOWAGE REQUIREMENTS: NONE

16. REQUIRED PRIOR, CONJUNCTIVE OR CONCURRENT CHANGES: C4I LAN ALT

17. OTHER SYSTEMS IMPACTS: IC SWITCHBOARD

18. INSTALLATION DURATION: SIX (6) WEEKS

SHIP CHANGE DOCUMENT
PHASE III

CHANGE TRACKING NUMBER **XX-1.1** **Expedite** **Approved**

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IMPACT IF NOT ACCOMPLISHED: NO REAL-TIME HIGH CAPACITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY

APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

19. HUMAN SYSTEMS INTEGRATION (HSI): (HAVE TO WORK WITH SEA 03 TO ACCOMPLISH)

Manpower/Workload: **2/80 HOURS**

Personnel: **4 SAILORS**

Training: **6 WEEKS**

Human Factors Engineering (HFE): **OPERATOR & DISPLAY REQUIREMENTS**

Habitability: **N/A**

Environment, Safety and Occupational Health (ESOH): **N/A**

Personnel Survivability: **N/A**

SHIP CHANGE DOCUMENT
PHASE III

CHANGE TRACKING NUMBER XX-1.1 **Expedite** Approved

SHIP CHANGE TITLE: REAL-TIME COMMUNICATION GIZMO

DESCRIPTION OF CHANGE: INSTALL TWO (2) RACKS OF EQUIPMENT AND A LASER TRANCEIVER

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APPLICABLE SHIP/SHIP CLASS/SITES: LHD, DDG

DATE: 8 JUNE 2004

20. CERTIFICATIONS/QUALIFICATIONS REQUIRED (CHECK ALL THAT APPLY):

ILS Cert X **Estimated Completion Date** 30 Jan 05

HSI Cert X **Estimated Completion Date** 20 Aug 05

EMI Cert X **Estimated Completion Date** 01 Apr 05

WSESRB N/A **Estimated Completion Date** N/A

Software Cert X **Estimated Completion Date** 01 Aug 05

Shock Qualification X **Estimated Completion Date** 01 Aug 05

SPAWAR PPL/SSIL (IT-21) Cert X **Estimated Completion Date** 01 Sep 05

SEA 62 Interoperability Cert X **Estimated Completion Date** 15 Sep 05

Other Cert (Specify) SAFETY X **Estimated Completion Date** 01 Jan 05

Other Cert (Specify) SECURITY X **Estimated Completion Date** 01 Aug 05

SHIP CHANGE DOCUMENT
PHASE III

CHANGE TRACKING NUMBER XX-1.1 **Expedite Approved**

SHIP CHANGE TITLE: REAL-TIME COMMUNICATION GIZMO

DESCRIPTION OF CHANGE: INSTALL TWO (2) RACKS OF EQUIPMENT AND A LASER TRANCEIVER

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APPLICABLE SHIP/SHIP CLASS/SITES: LHD, DDG

DATE: 8 JUNE 2004

21. APPROVAL RECOMMENDATION: **Rec** **Not Rec** **Rec Re-Work**

NUCLEAR POWER DIRECTORATE (As Required)__

Signature_____ **DATE**_____ _____ _____ _____

SHIP PROGRAM MANAGER

Signature MMM_____ **DATE** 15JUN ___X__ _____ _____

SHIP CHANGE DOCUMENT
PHASE III

CHANGE TRACKING NUMBER **XX-1.1** **Expedite**
Approved

SHIP CHANGE TITLE: **REAL-TIME COMMUNICATION GIZMO**

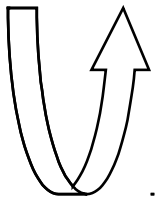
DESCRIPTION OF CHANGE: INSTALL TWO (2) RACKS OF EQUIPMENT AND A LASER TRANCEIVER

IMPACT IF NOT ACCOMPLISHED: NO REAL-TIME HIGH CAPACITY DATA TRANSMISSION FOR JOINT INTEROPERABILITY

APPLICABLE SHIP/SHIP CLASS/SITES: **LHD, DDG**
DATE: **8 JUNE 2004**

Technical Review Comments: TAT has no issues with this change and provides the following information per the business rules:

- No Superceded or redundant changes
- This change is FORCENET compliant
- Prototype required
- No conjunctive changes
- Supporting documentation required (TDP, Test Memos)



CFT ENTITLED PROCESS
PHASE II(A) SHIP CHANGE

SHIP CHANGE DOCUMENT
PHASE II(a)

CHANGE TRACKING NUMBER XX-5 **Expedite Approved**
SHIP CHANGE TITLE: Improved Water Heater Heating Element

DESCRIPTION OF CHANGE: DEVELOP IMPROVED WATER HEATER HEATING ELEMENT.

NEW ELEMENT WILL NOT CHANGE FORM, FIT, OR FUNCTION.

IMPACT IF NOT ACCOMPLISHED: DEGRADED HOT WATER HEATING CAPACITY

APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

1. **LIST APPLICABLE SHIP(s) WITHIN 5-YEAR DECOMMISIONING WINDOW:** USS YORKTOWN, USS VALLEY FORGE
2. **SYSTEM/EQUIPMENT DESIGNATION:** N/A
3. **MODEL NO.** N/A
4. **CAGE CODE:** N/A
5. **DETAILED DESCRIPTION OF CHANGE:** Replace water heater heating element no element

built with new material that will double the elements lifetime.

6. **ESWBS:** N/A
7. **PROTOTYPE REQUIRED:** Yes N/A

SHIP CHANGE DOCUMENT
PHASE II(a)

CHANGE TRACKING NUMBER XX-5 **Expedite Approved**
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IMPACT IF NOT ACCOMPLISHED: DEGRADED HOT WATER HEATING CAPACITY

APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

8. DISTRIBUTIVE SYSTEMS IMPACT:

	Added	Removed
A/C Plants / Chilled Water Dist (Tons A/C)	N/A	N/A
(CHW GPM)	N/A	N/A
Electrical Generation and Power Dist Sys (kW)	N/A	N/A
Topside Design / Mast Structure (Weight in Tons)	N/A	N/A
Fiber Optic Cable Plant (Yes / No)	N/A	N/A
Firemain (GPM)	N/A	N/A
Ship's Stability (Weight in Tons)	N/A	N/A
IC SWBD and Database Multiplex Sys (Loads)	N/A	N/A

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

9. OTHER CONSIDERATIONS (IF YES, PROVIDE EXPLANATION):

Topside: Yes No
Explanation:
Ship Characteristics Document change required: Yes No
Explanation:
Ship/Aviation Integration Impact: Yes No
Explanation:
Storage Requirements: Yes No
Explanation:
Dry Docking Required: Yes No
Explanation:

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

Certification Required: Yes No
Explanation (include responsible activity): **SUBSAFE Impact:** Yes No N/A
Network Impact: Yes No
Explanation: **Fuel System Impact:** Yes No
Explanation: N/A
IC Circuits Impact: Yes No
Explanation:
MCS/DCS Impact: Yes No
Explanation:

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

Software Impact: Yes No
Explanation:
Weapons Systems Impact: Yes No
Explanation:
Space Configuration: **Yes** **No**
Explanation:
Hangar Bay/Flight Deck Impact: Yes No
Explanation:
Air Systems: **Yes** **No**
Explanation:
Ordnance Handling/Storage: **Yes** **No**
Explanation:
Other:
Explanation:

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

10. SHOCK, VIBRATION AND EMI REQUIREMENTS:

Shock Grade (check one in accordance with the GSO section 072): A B C N/A

Compliant with MIL-STD-167-1 Type 1 Vibration Requirements (check one): Yes No N/A

Compliant with MIL-STD-461 EMI Requirements (check one): Yes No N/A

Compliant with MIL-STD-464 EMI Requirements (check one): Yes No N/A

Compliant with OPNAVINST-2400.20 RF Spectrum Management Requirements: Yes No N/A

Compliant with HERO/HERP/HERF (NAVSEA OP 3565) Requirements (check one): Yes No N/A

Remarks:

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

11. INTEGRATED LOGISTICS SUPPORT (ILS) IMPACT (check all that apply)

- [X] Technical Manuals
- [ ] Provisioning
- [ ] Planned Maintenance System (PMS)
- [ ] Ship's Selected Records (Drawings & Manuals)
- [ ] Operating Sequencing Systems (OSS)
- [ ] Steam Plant Manual (SPM)
- [ ] Test Equipment
- [ ] Software management
- [ ] Specify software support activity: _____
- [X] Spares Affected
- [ ] Specify responsible activity: _____
- [X] COTS/NDI
- [ ] Facilities

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

12. DETAIL DESIGN CRITERIA: (Check all that apply)

Ship Specification

- ❑ **Deep Diving General Overhaul Specification**
- ❑ **General Specifications for Overhaul (GSO)**
- ❑ **Other (Specify)_____**

13. ARE THERE QUALITY ASSURANCE REQUIREMENTS IN ADDITION TO STANDARD REQUIREMENTS? Yes ___ No X

If Yes, List Requirements:_____

14. ARE THERE REFERENCES/SUPPORTING DOCUMENTATION IN ADDITION TO STANDARD REQUIREMENTS? Yes____ No X

If Yes, List Requirements:_____

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's

DATE: 30 JUNE 2004

15. ESTIMATED WEIGHT AND MOMENT:

WEIGHT	VCG	LCG	TCG
N/A			
Stability Statement			

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

16. CHANGE MATERIAL/SOFTWARE LIST:

ITEM NO.	DESCRIPTION	UNIT OF ISSUE	QUANTITY	PROCURING ACTIVITY
1	HEATING ELEMENT	1	5	ISEA

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's

DATE: 30 JUNE 2004

17. SPECIAL DISPOSITION REQUIREMENTS FOR REMOVED MATERIAL:

MATERIAL	DISPOSITION
OLD HEATING ELEMENT	RECYCLING ACTIVITY

18. INSTALLATION SUPPORT AND TEST EQUIPMENT: NONE

19. SHIPBOARD STOWAGE DETAILS: NONE

20. NAVSEA SHIP INSTALLATION DRAWING (SID) REVIEW REQUIRED: YES___ NO X

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 30 JUNE 2004

21. SPECIAL INDUSTRIAL STOWAGE REQUIREMENTS: NONE

22. REQUIRED PRIOR, CONJUNCTIVE OR CONCURRENT CHANGES: NONE

23. INSTALLATION DURATION: 1 DAY

24. HUMAN SYSTEMS INTEGRATION (HSI):

Manpower/Workload: 0

Personnel: 0

Training: NONE

Human Factors Engineering (HFE): N/A

Habitability: NONE

Environment, Safety and Occupational Health (ESOH): N/A

Personnel Survivability: N/A

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's

DATE: 20 JUNE 2004

25. CERTIFICATIONS/QUALIFICATIONS REQUIRED (CHECK ALL THAT APPLY):

ILS Cert	X	Estimated Completion Date 1 AUG 04
HSI Cert	X	Estimated Completion Date 15 JUL 04
EMI Cert		Estimated Completion Date
WSESRB		Estimated Completion Date
Software Cert		Estimated Completion Date
Shock Qualification		Estimated Completion Date
SPAWAR PPL/SSIL (IT-21) Cert		Estimated Completion Date
SEA 62 Interoperability Cert		Estimated Completion Date
Other Cert (Specify) SAFETY		Estimated Completion Date
Other Cert (Specify) SECURITY		Estimated Completion Date

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's

DATE: 20 JUNE 2004

26. CBA

27. AFOM

28. APPROVAL RECOMMENDATION: **Rec** **Not Rec** **Rec Re-Work**

NUCLEAR POWER DIRECTORATE (As Required)__

Signature_____ **DATE**_____ _____ _____ _____

SHIP PROGRAM MANAGER

Signature VVVVV ___**DATE** 10 JUL 04 ___X___ _____ _____

SHIP CHANGE DOCUMENT
PHASE II(a)

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APPLICABLE SHIP/SHIP CLASS/SITES: CG's

DATE: 20 JUNE 2004

Technical Review Comments:

Technical Review Comments:
Prototype required: NO
Conjunctive changes identified: NONE
Superceded or redundant change: NONE
FORCENET compliant: N/A

Recommended Change Package (RCP) Decision Point 3

CHANGE TRACKING NUMBER XX-5 **Expedite Approved**
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APPLICABLE SHIP/SHIP CLASS/SITES: CG's
DATE: 20 JUNE 2004

Requirements / Impacts Proposed Military Improvement Reduction of Total Owner Ship Unavailable, Obsolete or Unreliable Equipment QOS/QOL	**AFOM #** 82
Technical Assessment TAT recommends for procurement and installation. Superceded or redundant changes: None Change is FORCENET compliant: Yes Prototype required: NO Conjunctive changes: NO	**Voting Block** Recommend x Non-recommend
CBA Cost: 10M OPN and 5M OM&N ROI: 6 Months	**Resource Sponsor** NXX **Execution Plan** PR 07 OPN 10M PR 07 OM&N 5M

Comments / Recommendations: Recommend full funding for procurement and installation.